The Implications of an Adaptation of the 'Working On What Works' (WOWW) Intervention: A Case Study of a Group of Children in Year 2 and their Class Teacher.

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Abstract

Working on What Works (WOWW) is a solution-orientated classroom management programme which targets both teachers and students, aiming to improve behaviour and relationships within the classroom (Berg and Shilts, 2004; 2005). The intervention is delivered over 10 weeks with the support of a WOWW coach. It centres on complimenting, goal setting and scaling. The purpose of the current study was to investigate the impacts of WOWW when it is adapted from a whole-class intervention to a small-group intervention. The small group in the present study were five children in Year 2 with internalising and/or externalising behaviour difficulties, as identified by their class teacher.

The research employed a case study design to explore the effects of the adapted WOWW intervention on the children's behaviours and to investigate participants' perceptions of WOWW. The study used both quantitative and qualitative measures, including classroom observations, semi-structured interviews, focus groups, questionnaires and ranking and rating activities.

Previous research on WOWW is limited, but indicates positive effects on teacher confidence and teacher perceptions of student behaviour. The findings of the current study suggest positive trends following the adapted WOWW intervention; the children's on-task behaviour increased while the teacher's ratings of their inattention, aggression/disruption and anxiety all decreased. Perceptions of the intervention were positive and the teacher commented on the significant impact WOWW had on the group of children. The findings support previous WOWW studies and suggest its possible utility as a classroom intervention.

Dedication

This thesis is dedicated to my four pillars of support:

To **Rod**, my loving husband. You have given me a constant stream of support during my studies and you have never once complained about the limitations it has set on our family. You are one of a kind.

To **Lesley**, my mum, closest friend and biggest fan. You have given me the belief that I could accomplish this and you have provided endless practical and emotional support (special credit to the lovingly-made bacon sandwiches during long study days).

To **Esmé and Eloise**, my strengths, my reasons, my daughters. You have provided the purpose for everything I do. I am sorry for our lost time together, I will make up every minute and more. Thank you for being the lights of my life.

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To my nan, thank you for inspiring me every day.

Finally, I owe a great deal to the teacher and children for welcoming me into their classroom. Without their participation, this research would not have been possible.

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List of Abbreviations

BSP	Behaviour Specific Praise
CICO	Check-In Check-Out
CYP	Children and Young People
CR	Critical Realism
CWFIT	Class-Wide Function-Related Intervention Teams
GBG	Good Behaviour Game
PBS	Pupil Behaviour Schedule
SBQ	Social Behaviour Questionnaire
SFBT	Solution-Focussed Brief Therapy
TEP	Trainee Educational Psychologist
WOWW	Working on What Works

Chapter 1: Introduction

1.1 Context

This research forms Volume 1 of a two-part thesis which is a requirement for the Applied Educational and Child Psychology Doctorate programme at the University of Birmingham. The research was completed during the second and third years of the programme, while being on placement as a Trainee Educational Psychologist (TEP) in a Midlands Local Authority.

1.2 Background

This study investigates the impacts of an adapted version of the Working on What Works (WOWW) intervention (Berg and Shilts, 2004; 2005) through a case study of a group of children in Year 2 (aged 6-7 years) and their class teacher. WOWW is a solution-orientated classroom management programme which targets both teachers and students, aiming to improve behaviour and relationships within the classroom. The WOWW approach utilises three core practices within Solution-Focused Brief Therapy (SFBT) – client compliments, goal setting and scaling (Kelly *et al*., 2011).

In my practice as a TEP, I attended a planning meeting where a headteacher discussed a group of children in a Year 2 class that were causing concern for the class teacher and other colleagues in the school, for a variety of reasons. The headteacher asked if the educational psychology service could provide support to the students and their teacher through a group or class intervention.

As a result of this request, I reviewed the literature on classroom behaviour interventions (Section 2.4) and decided that the WOWW approach was the most appropriate intervention (Section 2.5.1). The school staff were receptive to trying the WOWW approach and were eager to participate in the research project.

1.3 Rationale

I was personally motivated to complete this research as I have an interest in the areas of SFBT and positive psychology (Seligman and Csikszentmihalyi, 2000). I have a naturally positive disposition and a preference for strengths-based approaches. My role as a TEP involves direct work with children and young people (CYP) and I often adopt a SFBT approach to questioning; for example, I use scaling, goal setting and the miracle question (De Jong and Berg, 2002). I also utilise positive psychology; for example, I use a card sorting activity which helps to elicit CYP's strengths in a range of activities. I find these elements of my practice fulfilling and effective and wanted to add to the evidence base of positive, solution-orientated interventions in schools. As mentioned, WOWW is underpinned by tenets of SFBT and thus fits my interests and worldview.

Beyond my own preferences, there were several reasons for the selection of the WOWW intervention, which are detailed throughout Sections 2.4 and 2.5. To summarise:

- WOWW's evidence base is small with only five published studies since its inception in 2004;
- These studies used indirect measures of student behaviour, such as teachers' perceptions of behaviour change. Thus, the evidence base lacks

research using structured classroom observations, the typical measure adopted in other classroom behaviour intervention studies;

- The five studies were conducted in the United States of America (USA) and Scotland, with no published research from England;
- WOWW can address both internalising and externalising behaviour difficulties, which fits with the group of children in the current study;
- WOWW works collaboratively with teachers, who reportedly experience stress and a lack of support in managing both internalising and externalising behaviours; and
- WOWW centres on providing positive, specific feedback to children, which has been correlated with improved student behaviour in research.

1.4 Research Questions

The research questions for the current study are:

1. How is the classroom behaviour of a group of Year 2 children impacted by the adapted WOWW intervention?
2. How is participation in the adapted WOWW intervention perceived by a) the group of children, b) their parents and c) their class teacher?

Chapter 2: Literature Review

This chapter will begin by broadly considering children's classroom behaviour and the impacts of externalising and internalising behaviours in school. It will then briefly explore literature on teachers' feedback to children, considering different types of feedback and the impacts they have. The chapter will then explore ways that teachers can be supported in managing children's behaviour, before reviewing four classroom-based interventions: Working on What Works (WOWW), the Good Behaviour Game (GBG), Check-In Check-Out (CICO) and Class-Wide Function-Related Intervention Teams (CWFIT). Finally, further consideration will be given to the WOWW approach and its origins in SFBT, as this is the focus intervention of the current research.

2.1 Children's Behaviour in the Classroom

Behaviour is defined in the Oxford English Dictionary as: '*The way in which an animal or person behaves in response to a particular situation or stimulus'* (https://en.oxforddictionaries.com/definition/behaviour, 2017). Considering children's classroom behaviour in this broad sense involves thinking about how children act and react to events in the classroom. In this way, children's *behaviour* is not associated with negative acts, such as disruption or non-compliance. It is simply their actions in the classroom – which can be positive, negative or neutral and can be described in many ways. It is this broad definition of behaviour that is used in the first research question in Section 1.4.

Looking at children's behaviours that *are* concerning for teachers, there can be a broad distinction made between externalising and internalising behaviours (Baker,

Grant and Morlock, 2008). Externalising behaviours are directed outwards, whereas internalising behaviours are directed inwards – examples of each behaviour type are provided in Table 1. While the distinction between externalising and internalising behaviours has been made explicit here, it is important to highlight that most of the literature on children's classroom behaviour explores problematic, externalising behaviours only.

Table 1 - Examples of Externalising and Internalising Behaviours (adapted from Hunter, Chenier and Gresham, 2014)

Examples of Externalising Behaviours	Examples of Internalising Behaviours
• Aggression • Disruption • Hyperactivity • Opposition • Defiance • Destruction of property	• Social withdrawal • Negative self-thoughts • Depression • Anxiety • Poor self-esteem • Somatic complaints

2.1.1. Externalising Behaviours

Research on externalising behaviours in the classroom report that they have many significant and negative effects, including: increased stress levels for teachers and pupils; disruption to the flow of lessons and the process of learning; reduced opportunities to meet learning objectives and changes to the classroom dynamic (Parsonson, 2012). It is estimated that 50% of newly qualified teachers leave the profession within five years; survey data suggest that classroom management factors are rated as more important reasons for leaving teaching than low pay (Kelly *et al*., 2011). Many teachers report a lack of training in managing children's disruptive behaviours as a source of stress and burn out (Whear *et al*., 2013).

Incidentally, interventions which support teachers' skill development in managing externalising behaviours have the potential to increase the mental health of both adults and children in schools (Whear *et al*., 2013).

Interest in children's classroom behaviours is not limited to academic literature, the media and government also discuss the impact of externalising behaviours. For example, the Department for Education (DFE) published a document entitled *'Pupil Behaviour in Schools in England'* (DFE, 2012) which discussed poor behaviour as resulting in: lost teaching time; detrimental effects on the learning of other pupils; disengagement; reduced attendance; increased exclusion and increased risks of not being in education, employment or training post-16. Also, in the Office for Standards in Education (OFSTED) school inspection handbook (OFSTED, 2016) the behaviour of pupils is used as a metric of school performance; to achieve an outstanding grade for teaching and learning, pupil behaviour must be managed *'highly effectively with clear rules that are consistently reinforced'* (OFTSED, 2016, p. 47).

2.1.2 Internalising Behaviours

Hunter *et al.* (2014) stated that internalising behaviours are frequently overlooked in classrooms compared with externalising behaviours. The authors reasoned that internalising behaviours are more difficult to detect and do not typically interfere with classroom ecology. Consequently, internalising behaviours can go unnoticed, with increased possibility that the CYP affected may not be referred for additional support or intervention. Papandrea and Winefield (2011) used the analogy of *'the squeaky wheel gets the oil'* in the title of their paper and state that students showing

externalising problems are likely to receive assistance, whereas those presenting with internalising problems are often neglected. This is further supported by McIntosh, Ty and Miller (2014) who noted that there is little research examining the effects of interventions on internalising behaviours.

Evidence suggests that children with internalising behaviour difficulties underachieve academically and have reduced problem-solving skills (O'Connor, Dearing and Collins, 2011). An evidenced protective factor for these children is a high-quality relationship with a teacher. Children who showed high levels of internalising behaviour at aged 6-7 years, who then developed high-quality relationships with teachers in school, displayed internalising behaviour at a similar level to their typically developing peers by age 10-11 years (O'Connor *et al.,* 2011). This pattern was found even when accounting for other family and school support, highlighting the vital role played by teachers in children's emotional wellbeing. However, teachers have reported limited knowledge, training and support in managing internalising behaviour difficulties and cite this as a source of stress (Papandrea and Winehouse, 2011).

Whether the behaviour of concern is externalising or internalising, there is rationale for supporting teachers to support the CYP in their classes. The group of children in the current case study comprised of those displaying internalising behaviours, externalising behaviours or both. One way of supporting teachers in managing these behaviours is to enlist the support of external professionals, such as educational psychologists.

2.1.3 Role of Educational Psychologists in Behaviour Management

Educational psychologists (EPs) are often involved with issues relating to children's behaviour in the classroom (Hart, 2010). EPs have a variety of roles in this area, including:

- Advising teachers on effective strategies;
- Completing classroom observations;
- Working with individual children or groups of children;
- Providing staff training;
- Implementing interventions;
- Helping to shape behaviour policies and systems;
- Consulting with parents and school staff on possible reasons for children's behaviour; and
- Supporting with action planning.

In my own practice as a TEP, I am regularly asked to consult and advise on behaviour-related issues. As discussed in Section 1.2, the current study came to fruition through a headteacher's request for support with a group of Year 2 children whose behaviours were concerning for school staff.

2.2 Teachers' Feedback to Children

2.2.1 Nature of Teacher Feedback

Teacher feedback pertains to the information presented by the teacher to the children, in response to an event or action. Interest in this area dates back to the 1960's. For example, Madsen, Becker and Thomas (1968) observed that when

teachers praised appropriate behaviours, disruptive behaviours decreased. Research has developed over time to consider *types* of teacher feedback. In 1981, Brophy distinguished a type of praise which he labelled 'behaviour specific praise' (BSP) and argued this to be most effective. BSP involves explicitly describing to the student the behaviour which has gained the teacher's approval e.g. *"I really like the way you walked in quietly and sat on the carpet facing the front."*

Floress and Jenkins (2015) examined the rate of BSP in four Kindergarten classes (children aged 5-6 years) in the USA during 889 minutes of observations. The average rate of praise was 47.3 praising comments per hour; of this 38.5 was general praise and 8.8 was BSP. These rates of praise were similar to older research; for example, White (1975) reported that there was an average of 43.7 praising comments per hour for 5-7 year olds (from 8,340 minutes of classroom observation data). This research, however, did not account for whether praise was general or specific.

Burnette and Mandel (2010) extended research in this area, suggesting four over-arching types of teacher feedback:

- General, non-targeted praise e.g. *"good job", "well done"*;
- Negative feedback e.g. *"that's wrong", "that's messy"*;
- Effort feedback e.g. *"you've tried really hard on that calculation"*; and
- Ability feedback *"you're really clever at reading"*.

Through classroom observations in Australia with five teachers and 56 children aged 6-12 years, the authors found that 89% of the feedback was positive (general praise, effort feedback or ability feedback) and 11% was negative. Similar to Floress and Jenkins' (2015) study, general praise was most prevalent and accounted for

71-93% of all praise, whereas ability and effort praise were used less than 10% of the time. The small sample size and Australian context must be considered in generalisation of these results; nonetheless, the research extends the findings that general praise is more prevalent than specific praise.

2.2.2 Impact of Teacher Feedback

The correlation between positive teacher feedback and increased compliance and on-task behaviour in students is well evidenced. In their 2007 paper, Swinson and Knight reported research dating back to the 1970's and up to the 2000's which evidenced this phenomenon (e.g. Thomas *et al*., 1978; Merret and Wheldall, 1987; Winter, 1990 and Swinson and Harrop, 2002; 2005). It is important to note that these are correlation studies, and thus it is not clear whether positive teacher feedback *caused* increased rates of on-task behaviour.

Other impacts of positive teacher feedback have been reported as: increased academic attainment (Sutherland and Wehby, 2001); decreased problem behaviours (Fullerton, Conroy and Correa, 2009); decreased disruption (Hayden and Musti-Rao, 2011) and improved student-teacher relationships (Gable *et al.,* 2009; Skipper and Douglas, 2015). However, as discussed in the previous section, the *type* of teacher feedback is important; Burnette and Mandel (2010) argued that general, non-targeted praise has limited impact on children's engagement, subject understanding or relationships with the teacher.

There has also been research that examines the effects of praise on specific student behaviours. For example, Caldarella *et al.* (2011) found that student punctuality improved following personalised, hand-written notes being given to students if they

arrived on time. Also, Moffat's (2011) research suggested that BSP can reduce aggressive behaviours, although it must be noted that only one child was included in this study.

In summary, there is agreement in the literature that teacher feedback is correlated with student behaviour. Much research agrees that teachers' use of BSP has a positive impact on students' engagement. Despite this, rates of BSP appear to be lower than general praise. Therefore, when considering interventions aimed at improving student behaviour, it would make sense if they also aimed to increase teachers' use of specific, positive feedback – as the WOWW intervention does.

2.3 Supporting students and teachers in the classroom

There is a wealth of research on evidence-based strategies to promote students' positive behaviour in the classroom. Hart (2010) summarised effective behaviour management as including these general components: classroom rules and expectations; reinforcement of appropriate behaviours; staff-student relationships and interactions; consistent response to undesired behaviours; procedures for chronic misbehaviour and consideration of the classroom environment. Similarly, Parsonson (2012) discussed general classroom strategies such as: clear and simple rules; predictability of events through established routines; frequent use of verbal and non-verbal praise; opportunities for all children to respond and participate in activities and differentiation of tasks to ensure access to the curriculum for all. In accord, Gable *et al.* (2009) presented evidence that rules, praise, ignoring and reprimands are sound classroom management strategies, with caveats and

adaptations to be considered for individual needs. These general strategies apply to all students in school and often form part of universal, whole-school behaviour policies.

2.3.1 Tiered Intervention

In the USA, over 19,000 schools across all 50 states use the 'Positive Behaviour Intervention Support' framework (Kim, Kelly and Franklin, 2017). This model consists of three tiers: primary, secondary and tertiary (Sugai and Horner, 2009), as outlined in Figure 1. The primary tier consists of strategies (such as those listed in the previous section) and interventions that can be implemented with all students in school. The secondary tier is aimed at the minority of students who do not successfully respond to strategies in the primary tier. In the secondary tier, interventions are implemented similarly across small groups of children and require minimal time and resources from staff (Campbell and Anderson, 2008). The tertiary tier involves individualised interventions for students who require the most support, often provided by external specialists. This model is similar to the three waves of intervention promoted within the National Strategies (OFSTED, 2009) that were implemented between 1997 and 2011 in the UK.

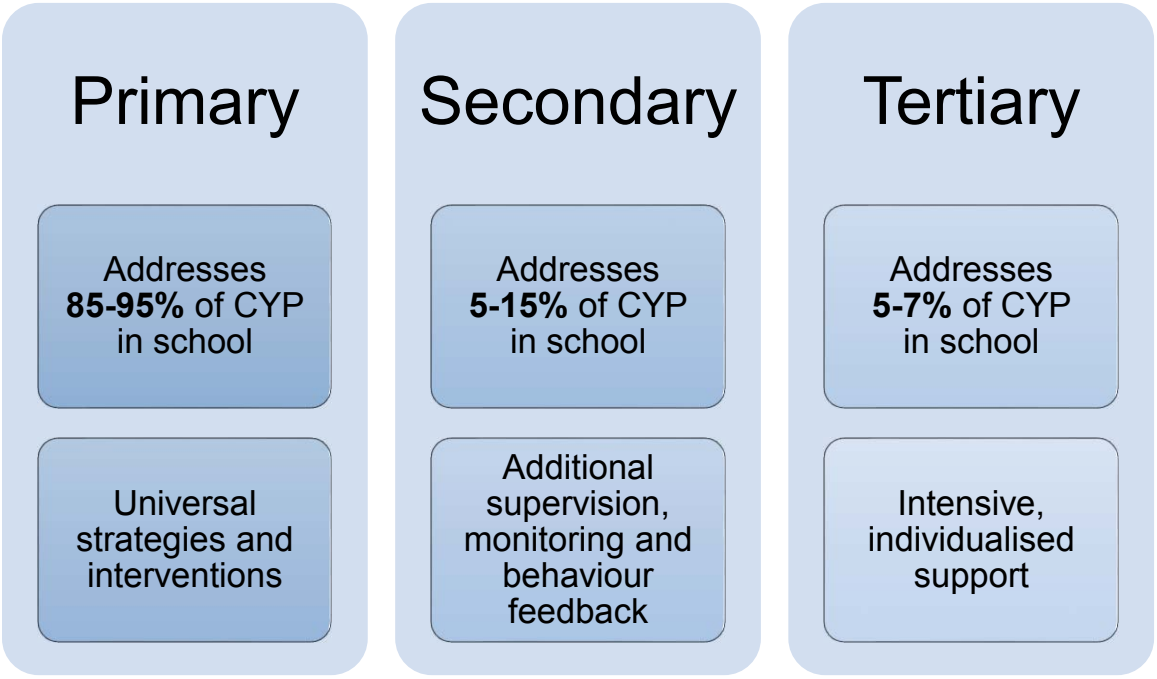


Figure 1 - Three-Tiered Intervention Model (Sugai and Horner, 2009)

The children in the current study were reported as concerns for staff in school, but they felt that the level of behaviour difficulties was not severe enough to warrant individualised interventions from the tertiary tier. Instead, staff felt that their needs were more closely matched to either a primary tier, whole-class intervention or a secondary tier, small-group intervention. Section 2.4 of this chapter will examine four evidence-based classroom behaviour interventions that were considered for the group of children, three of which were primary tier and one of which was secondary tier.

2.4 Systematic Literature Review of Classroom Behaviour Interventions

2.4.1 Aims of the Systematic Review

The purpose of completing a systematic literature review is to answer specific questions by synthesising existing research in a particular field. The primary aim of this systematic literature review was to identify, synthesise and compare studies that reported classroom-based interventions aimed at improving children's behaviour. The research questions for this systematic literature review were:

1. What are the evidence-based interventions aimed at improving children's behaviour in mainstream, primary classrooms?
2. What are the dominant research methods used for investigating these interventions?
3. What are the dominant psychological perspectives that underpin these interventions?
4. What impact do these interventions have on students and teachers in school?

2.4.2 Search Strategy

The literature search was completed in two phases, which are outlined below. For full details of the search strategy used in phase one, see Appendix 1.1, and for phase two, see Appendix 1.2.

<u>Phase 1</u>

- The initial searches involved using a combination of search terms, for example 'classroom intervention' or 'behaviour intervention' in three electronic databases: Education Resource Information Centre (ERIC), PsycINFO and Web of Science. The search included studies published from 2007 to 2017.

- Of the generated articles, each of their titles were read and if the topic or focus was irrelevant to the current study, the articles were discarded.
- For the titles that were potentially relevant, the abstract was read to clarify whether their inclusion was appropriate for the current review, using the inclusion and exclusion criteria (Section 2.4.3).
- Duplicates or articles that were irrelevant at this point were discarded and the remaining articles were included for full-text reading.
- Subsequent screening of the full texts resulted in 13 papers being discarded (see Appendix 1.3 for details)
- Phase 1 yielded 15 articles which met the inclusion criteria.

Phase 2

The 15 articles that met the inclusion criteria reported four different interventions:

- Working on What Works (WOWW);
- Good Behaviour Game (GBG);
- Class-Wide Functional Intervention Teams (CWFIT); and
- Check-in, Check-out (CICO).

To ensure that the review included all articles that reported one of these four interventions (and met the inclusion criteria), an individual search of each intervention was completed with the three electronic databases used in phase one (ERIC, PsycINFO and Web of Science). This yielded a further 14 articles meaning that a total of 29 papers are discussed in the current literature review (see Appendix 1.4 for details of the 29 articles included).

2.4.3 Inclusion and Exclusion Criteria

To fulfil the aims of the review, the inclusion and exclusion criteria detailed in Table 2 was used.

Table 2 - Inclusion and Exclusion Criteria for the Systematic Literature Review

Inclusion Criteria	Exclusion Criteria
The study was published between 2007 and 2017.	The study was published before 2007.
The study was published in a peer-reviewed journal.	The study was not published in a peer-reviewed journal.
The study was written in English.	The study was not written in English.
The study took place in a country where English is the first language e.g. UK, USA, Australia.	The study took place in a country where English is not the first language.
The study was based on empirical research.	The study was based on non-empirical research e.g. review studies or theoretical discussions.
The study reported a school-based intervention.	The study reported a non-school based intervention e.g. in a hospital, clinic or home.
The study reported a classroom-based intervention.	The study reported a non-classroom based intervention e.g. a playground intervention or withdrawal intervention.
The intervention focused on classroom behaviour.	The intervention focused on academic attainment, physical health, peer relations etc.
The outcomes of the intervention were based on measures of children's behaviour in the classroom e.g. observations of on-task/off-task behaviour, teacher perceptions of behaviour etc.	The outcomes of the intervention were based on other, non-behaviour-related measures e.g. academic attainment, playground behaviour or intervention fidelity.
The intervention took place in a mainstream primary school.	The intervention took place in specialist provision. The intervention took place in a nursery, pre-school, secondary school, college or university.
The intervention targeted more than one child.	The intervention targeted individual children only.
The intervention did not target a specific population of children e.g. those with Autism Spectrum Disorder, Attention Deficit Hyperactivity Disorder, ethnic minority etc.	The intervention targeted a specific population of children e.g. those with Autism Spectrum Disorder, Attention Deficit Hyperactivity Disorder, ethnic minority etc.
The intervention involved fully-qualified teachers.	The intervention targeted trainee or 'pre-service' teachers.
The intervention is named and manualised.	The intervention is not named or manualised.

2.4.4 Evidence-Based Classroom Behaviour Management Interventions

The current literature review found four evidence-based interventions, which will initially be discussed in turn.

Working on What Works (WOWW*)*

Working on What Works (WOWW) is a 10-week, whole-class, solution-orientated classroom intervention that targets teachers and students and centres around positive feedback, goal setting and scaling. Berg and Shilts (2005) outline three phases of the intervention:

- Phase 1: Weeks 1-3:

  The WOWW coach visits the class for 60 minutes, once per week and observes positive behaviours from the students and teachers in the class. The coach then gives each student and teacher individual, verbal feedback about one positive thing that was noticed.

- Phase 2: Weeks 4-6

  The WOWW coach continues to visit the classroom once per week to observe and provide positive feedback. In addition, the coach facilitates discussion with the class and the teacher to set classroom goals, which are then rated as a class on a scale from one to 10. The coach asks solution-focused questions such as '*what would it take to move one point up the scale*?'

- Phase 3: Weeks 7-10

  The WOWW coach continues to visit the class once per week to complete observations, give positive comments and support with goal setting and scaling. The observations become more specific in this phase and the coach looks for positive behaviours that relate to the class goals. In addition, the class teacher works with the class daily to rate their goals on the scale.

There are currently five published studies reporting the effectiveness of WOWW, highlighting that the evidence base is small. All five studies met the inclusion criteria of the current review (see Appendix 1.4 for a list of these articles).

Good Behaviour Game (GBG)

The Good Behaviour Game (GBG) is a primary school intervention aimed to support teachers and children to promote positive behaviour and learning in the classroom (Coombes *et al*., 2016). It was first introduced by Barrish, Saunders and Wolf (1969) and has a substantial evidence base that spans over 40 years. GBG research is predominantly from the USA (Flower *et al*., 2014), however, some research indicates that it is effective across cultures (Nolan *et al*., 2014). The GBG is a primary tier, class-wide intervention.

The GBG is usually played for 20-30 minutes daily, during an instructional activity such as Literacy or Numeracy. The main features of the GBG include:

- assigning students to teams;
- creating simple rules;
- giving points to teams that demonstrate *inappropriate* behaviours; and
- rewarding the teams with the lowest number of points (Bowman-Perrott *et al*., 2016).

Typically, a criterion for winning is established, such as, to accumulate less than five points during a set task, meaning that more than one team can win each game (McGoey *et al*., 2010). Teams are balanced for gender, behaviour and ability. Rewards initially include tangible rewards (e.g. stickers) and gradually phase out to less tangible rewards (e.g. increased golden time). In the current review, nine

articles reporting the GBG met the inclusion criteria (see Appendix 1.4 for a list of these articles).

Class-Wide Function-Related Intervention Teams (CWFIT)

Class-Wide Function-Related Intervention Teams (CWFIT) is a multi-component intervention that was adapted from the GBG. Like the GBG, CWFIT involves a daily game which is played with the entire class. The students are arranged into teams and each member of the team needs to display specific, agreed classroom behaviours for that team to earn rewards. The notable differences are that in CWFIT, teams are assigned points for *positive*, pro-social behaviours whereas in the GBG teams are assigned points if they violate any classroom rules. Furthermore, the emphasis of CWFIT is on the direct teaching and reinforcement of pro-social classroom behaviours, typically: gaining the teacher's attention appropriately, following directions first time and ignoring inappropriate behaviours from others (Conklin, Kamps and Wills, 2016). In addition to the daily game, teachers reinforce these pro-social behaviours throughout the school day and minimise attention to inappropriate behaviours.

The evidence base for CWFIT is considerably smaller than for the GBG with less than 10 empirical studies, all conducted in USA. In the current review, five of these studies met the inclusion criteria (see Appendix 1.4 for a list of these articles).

Check-In Check-Out (CICO)

Check-in Check-Out (CICO) is a secondary tier intervention which aims to improve the classroom behaviour of a group of children within a primary or secondary school. It has a substantial evidence base, originating largely from the USA. Hawken *et al*.

(2014) conducted a systematic literature review and reported 28 studies of CICO. Research has largely been undertaken with children displaying externalising behaviours (Fairbanks *et al.*, 2007; Campbell and Anderson, 2011; Simonsen, Myers and Briere, 2011). However, there is a small body of evidence which shows its effectiveness in addressing internalising behaviours (Hunter *et al.*, 2014; Dart et al., 2015).

CICO is a daily intervention which encompasses the following steps:

1. Each morning the selected students check in with their mentor who reviews their performance from the previous day, reminds them of their personalised behaviour goals and gives them a daily progress report (DPR);
2. The students give their DPR to their teacher at the beginning of each lesson;
3. At the end of each of lesson, the teacher completes the DPR, awards points for meeting target behaviour goals, provides verbal feedback and praises appropriate behaviours;
4. At the end of the day, the students check out with their mentor who calculates their total points for the day and provides a reward if the specified daily points goal has been met; and
5. Finally, the students take their DPR home to parents/carers to be signed and returned the following morning.

The 5 steps are repeated each school day until the student meets an agreed criterion of points e.g. 80% of points for 10 consecutive school days, and then the intervention is faded out. In the current review, 10 articles reporting CICO met the inclusion criteria (see Appendix 1.4 for a list of these articles).

2.4.5 Research Methods of the Included Intervention Literature

This section will consider the 29 articles in terms of their: setting, participants, research methods and methodologies. A table summarising this information for each individual study can be found in Appendix 1.5.

2.4.5.1 Research Setting

25 of the 29 studies were conducted in the USA; three were undertaken in Scotland and one in England. This reflects a paucity of British research on classroom behaviour interventions, as acknowledged by Whear *et al.* (2013). Interestingly, three of the four UK studies researched the WOWW intervention, with the other focusing on the GBG. Thus, there has been more British interest in WOWW than the other behaviour interventions explored in this review. The current study aims to extend this British interest in WOWW and to strengthen research into classroom behaviour interventions in the UK more generally.

2.4.5.2 Research Participants

All 29 studies included primary school children as participants (as per the review's inclusion criteria). In addition, 25 of the 29 studies included teachers as participants – either by asking for their perceptions of the intervention and/or by exploring changes in their practice in response to the intervention. There were no parent or carer participants in the reviewed literature, indicating a gap in the existing research which is being addressed in the present study, by acquiring parents' views.

2.4.5.3 Research Methods

As per the inclusion criteria, all studies measured students' behaviours in response to the interventions. 20 of the 29 studies used direct, structured classroom observations to measure student behaviour indicating that this was the principle research method. Observation methods were used in the majority of the GBG, CWFIT and CICO studies (20 out of 24). Conversely, *none* of the five WOWW studies used observation as a research method. WOWW has instead been evaluated through self-report data, such as questionnaires.

Teacher practice has been investigated in 14 of the 29 studies. 10 of these studies (five GBG and five CWFIT) measured changes in teacher practice through direct classroom observations, using frequency counts of teachers' use of praise and reprimand. Four studies, all exploring WOWW, measured teachers' perceptions of changes in their practice through open questionnaires (Lloyd, Bruce and Mackintosh, 2012) and pre- and post-intervention measures of teacher confidence (Fernie and Cubeddu, 2016); self-efficacy, stress and student-teacher relationships (Berzin, O'Brien and Tohn, 2012) and perceptions of classroom management skills (Kelly and Bluestone-Miller, 2009).

Participants' perceptions of the interventions have been explored in 20 of the 29 studies. All 20 of these studies sought the perspectives of adult participants whereas only eight sought the perspectives of child participants. Perceptions were gathered quantitatively and qualitatively; 16 of the 20 studies used quantitative treatment acceptability scales where teachers (and in six studies, children) used Likert scales to rate the different components of the intervention. The other four studies (three WOWW and one GBG) used qualitative measures including semi-

structured interviews (Brown, Powell and Clark, 2012; Coombes *et al.*, 2016); open questionnaires (Lloyd *et al*., 2012) and focus groups (Fernie and Cubeddu, 2016; Lloyd *et al*., 2012) to ascertain the teachers' (and in two studies, children's) perceptions of the intervention. The current study aims to add a unique contribution to the behaviour intervention literature by using observation data to measure WOWW, using interviews to explore changes in teacher practice and by gathering the qualitative perceptions of the intervention with both child and adult participants.

2.4.5.4 Methodologies

None of the 29 articles explicitly stated their ontological or epistemological positions. Many articles detailed their research designs, which may indicate their broad methodological position. For example, eight of the nine GBG studies discussed an experimental design such as ABAB or AB, where quantitative measures were taken during baseline ('A') and intervention phases ('B'). This indicates that the epistemological and ontological positions were positivist and realist, although this was not made explicit. The other GBG study (Coombes *et al*., 2016) stated the use of a mixed methods design; this may be underpinned by one of the common philosophical positions of mixed methods research, such as pragmatism, critical realism or dialectical pluralism (Creswell, 2014), but again – this is unknown. What is known, is that an overwhelming majority of the included studies (25 of 29) used quantitative data collection methods only. There were three WOWW studies (Brown *et al.,* 2012; Lloyd *et al*., 2012; Fernie and Cubeddu, 2016) and one GBG study (Coombes *et al*., 2016) that gathered qualitative data, alongside quantitative data. It is important to note that some authors would argue that quantitative methods do not always equate to positivism (Cohen, Manion and Morrison, 2011), however,

there is a clear imbalance between the use of quantitative and qualitative methods used for exploring classroom behaviour interventions in the current review. The present study addresses this imbalance by using an in-depth case study design which utilises both qualitative and quantitative measures.

2.4.6 Psychological Underpinnings of the Included Intervention Literature

The GBG, CICO and CWFIT interventions are underpinned by classic behaviourist principles. For example, in CICO, the daily points and potential rewards intend to serve as a positive reinforcement of desirable behaviours (Miller *et al.*, 2015). Also, the GBG and CWFIT use an evidence-based behaviourist principle named 'interdependent group contingencies' – where *all* members of the group must behave in a specified way for the group to gain rewards (Conklin *et al*., 2016). CWFIT is underpinned by the notion that behaviour is *functional;* the intervention aims to provide structured adult attention, which has been commonly reported as a function of challenging behaviours (Kamps *et al*., 2011).

The WOWW intervention is underpinned by SFBT. However, it is acknowledged that there are elements of the WOWW intervention that are analogous to behaviourist principles. For example, like in the GBG, CICO and CWFIT, in the WOWW intervention the coach is looking at the CYP's observable behaviours and focusing on those only.

Berg and Shilts (2004) outline the main assumptions of solution-building practices that inform WOWW:

- If something is not broken, do not fix it;
- If something works, do more of it;

- If something does not work, do not do it again, do something different;
- Change is constant and inevitable;
- The future is negotiated and created;
- There is no direct connection between problems and solutions; and
- No problem happens all of the time, there are always exceptions.

Within the WOWW intervention these assumptions are operationalised by the coach:

- Noticing positive moments and helpful changes in classroom behaviour;
- Drawing attention to exceptions through the verbal feedback; and
- Setting positive goals collaboratively with teachers and students.

These steps aim to ensure that the class are *working on what works.* The current literature review indicates that the predominant thinking underpinning the majority of classroom interventions is behaviourism and solution-focused thinking in this area is under-researched. This adds further rationale to the current study's investigation of the solution-focussed WOWW intervention.

2.4.7 Interventions' Impact on Students

All of the included articles measured children's behaviours in response to the various interventions and, perhaps limited by publication bias, all studies reported positive changes (see Appendix 1.6 for details of the specific outcomes for each study). The primary impact on students was a reduction in disruptive, off-task behaviours and/or an increase in pro-social, on-task behaviours following intervention. However, it is important to acknowledge the Hawthorne effect here. It has been recognised in social experiments that participants can modify their

behaviour simply because they are being observed or studied (Robson and McCartan, 2016). Therefore, the positive changes reported in these studies may not entirely relate to the interventions implemented.

Disruption was measured in different ways; for example, some studies measured the number of disruptions per minute (Donaldson *et al*., 2011; Donaldson, Wiskow and Soto, 2015) while others completed a frequency count of specific disruptive behaviours, such as talking out of turn (Elswick and Casey, 2011). Similarly, on-task and pro-social behaviours were measured differently; some studies calculated rates of on-task behaviour by coding groups of children as either on- or off-task every 30 seconds (Kamps *et al.,* 2011; Kamps, Conklin and Wills, 2015), while others asked children and teachers to rate pro-social behaviours (e.g. listening and being polite) before and after the intervention (Brown *et al.,* 2012; Fernie and Cubeddu, 2016; Lloyd *et al*., 2012). Irrespective of the individual studies' measurements, all of the findings suggested positive trends following intervention. Examples of findings from four studies are presented here for illustrative purposes:

- Fernie and Cubeddu (2016) conducted an evaluation of WOWW with 24 students and one class teacher in the UK. The teacher's ratings of the children behaviours in specific areas (e.g. respect, collaborative working and accepting peers) significantly increased from pre- to post-intervention. Similarly, the children's ratings of their abilities to listen and work together increased throughout the intervention. In a post-intervention focus group with four of the children they spoke about increased motivation, developing skills and an overall class improvement.
- Donaldson *et al*. (2011) investigated the GBG with 98 students and five teachers in the USA. During the pre-intervention phase rates of disruptive behaviour amongst the classes were stable and relatively high. Disruptive

behaviour decreased in all five classes following the implementation of GBG. Classes went from an average of 8-13 disruptions per minute to an average of 1-2 disruptions per minute.

- Kamps *et al*. (2015b) reported a randomised control study of CWFIT which involved 17 elementary (primary) schools in the USA over four years. Findings suggested that classes who received the CWFIT intervention had significantly increased on-task behaviour compared with both the classes' own baseline measures and compared with control groups that did not receive the intervention.
- Millar *et al*. (2015) conducted a study on CICO with four students in the USA. The research measured rates of problem behaviour and academic engagement through classroom observations. Their findings indicated reduced problem behaviour and increased engagement in CICO phases, compared with baseline and withdrawal phases. The effect size was reported as strong. Data was also gathered from the daily report cards used in CICO and mean ratings of appropriate behaviour increased for all participants.

Not all 29 studies measured children's pro-social or disruptive behaviours; for example, Dart *et al.* (2015) and Hunter *et al.* (2014) measured internalising behaviours (see Section 2.1). They used standardised, teacher-completed rating scales to measure children's internalising behaviours and reported positive changes in scores for the majority of participants following the CICO intervention.

Each of the 29 studies have a range of unique limitations, discussion of which is beyond the scope of the current review. However, there are some overarching limitations that can be highlighted. The observation data collection in the GBG, CICO and CWFIT studies were not triangulated with teachers' perceptions of children's behaviour change. Consequently, changes were observed by external researchers, but there is no evidence to suggest that teachers felt a qualitative difference in the classroom. As teachers cite managing children's behaviours as a

source of stress and burnout (Whear *et al*., 2013), it would be helpful to ascertain their views on behaviour change.

Equally, four of the five WOWW studies used self-report data only to measure changes in students' behaviours, with one study using data from school records in addition to self-report questionnaires (Berzin *et* al., 2012). Similar to the exclusive use observation data in the other intervention studies, the self-report data in WOWW studies was not triangulated with observation data, which may have strengthened the findings. The current literature review calls for classroom intervention research to adopt mixed methods, multiple-perspective approaches to examining behaviour change.

2.4.8 Interventions' Impact on Teachers

The interventions' impact on teacher practice was measured in:

- Four of the five WOWW studies;
- Five of the nine GBG studies;
- All of the five CWFIT studies; and
- None of the 10 CICO studies.

The GBG and CWFIT studies measured teachers' rates of praise and reprimand. Conversely, the WOWW studies measured teacher's feelings of confidence, self-efficacy, classroom management skills etc. Findings from the GBG studies suggest that the intervention had little impact on teacher feedback. Four studies (Donaldson et al., 2015; Lannie and McCurdy, 2007; Tanol *et al*., 2010; and Wahl *et al*., 2016) noted no change in teacher feedback and one study (Elswick and Casey, 2011)

reported an increase in teacher praise and a decrease in negative feedback during implementation of the intervention.

Findings from the CWFIT studies were more promising; all five studies reported increased praise and reduced reprimands during the intervention phases. For example, Conklin *et al*. (2016) observed the ratio of praise to reprimand to be 1:1 during multiple baselines observations and 4:1 during intervention phases – meaning that there were four times as many praising comments when the intervention was in place compared to standard classroom practice.

For WOWW, each of the four studies noted positive trends in teachers' practice following the intervention. Teachers rated increased confidence (Fernie and Cubeddu, 2016; Lloyd *et al*., 2012) and better classroom management skills (Berzin *et* al., 2012; Kelly and Bluestone-Miller, 2009). In a focus group, children reported positive changes in teachers' teaching style e.g. increased encouragement and fun in lessons, a change in pace and a wider variety of behaviour management strategies (Lloyd *et al*., 2012). However, Berzin *et* al. (2012) noted no changes in teachers' stress levels or relationships with students following the WOWW intervention.

2.4.9 Summary of the Systematic Literature Review

The systematic literature review aimed to answer four specific questions:

1. What are the evidence-based interventions aimed at improving children's behaviour in mainstream, primary classrooms?
2. What are the dominant research methods used for investigating these interventions?

3. What are the dominant psychological perspectives that underpin these interventions?
4. What impact do these interventions have on students and teachers in school?

In summary, the systematic literature review found four evidence-based interventions which were WOWW, GBG, CWFIT and CICO. Considering methods, 25 of the 29 studies used quantitative data collection methods only. For children's behaviour and teachers' practice, the dominant research method was structured classroom observations. The dominant method for measuring participants' perceptions was quantitative treatment acceptability scales, which were used in 16 of the 20 studies which gathered perceptions.

In terms of psychological perspectives, behaviourism was the dominant perspective, underpinning three of three of the four interventions (GBG, CICO and CWFIT). Whereas, WOWW is underpinned by SFBT. The findings suggest that the interventions were universally successful at bringing positive changes to children's behaviour. Generally, studies reported increased on-task and pro-social behaviours and reduced disruption following intervention, using a variety of measures. Regarding teacher practice, the findings were mixed; CWFIT seemed to increase teachers' rates of praise and WOWW seemed to increase teachers' feelings of confidence, self-efficacy and classroom management abilities. Whereas the GBG seemed to have little impact on teacher feedback.

The current study aims to address the limitations highlighted in the systematic literature review, by:

- Adding to the paucity of British research on classroom behaviour interventions;

- Being the first study of WOWW in England;
- Adopting the use of classroom observations in the investigation of WOWW;
- Gathering child and adult participant perceptions using qualitative methods;
- Including the views of parents; and
- Utilising a mixed method design to investigate a classroom behaviour intervention.

2.5 WOWW Intervention

In this section, the WOWW intervention will be explored in greater depth by outlining the rationale for its use over the other interventions; discussing the modification of WOWW in the current study; examining the supporting literature in closer detail and finally, exploring its tenets in SFBT.

2.5.1. Rationale for the WOWW intervention

In the present study, the WOWW intervention was selected instead of the GBG, CWFIT or CICO. There were several factors which led to this decision.

Firstly, the needs of the children in the present study seemed best served through the WOWW intervention. The group of children presented the teacher with different behaviours of concern – some internalising, some externalising and some both. Thus, it was felt that an intervention which gives the opportunity to recognise the children's individual strengths and to celebrate these, while working together as a group on specific classroom goals would be suitable. The verbal praise within the WOWW intervention can easily be differentiated to reflect the needs of the

individuals within the group. With the GBG or CWFIT, the behaviours that result in rewards are set and fixed for the whole class, making differentiation more difficult. There are goals in the WOWW intervention that apply to the group, but these are created collaboratively and can be changed regularly, thus allowing the goals to address a range of different needs, which suits the participants in the current study.

Secondly, I feel that the SFBT underpinnings of WOWW bring about specific advantages as compared to the other interventions. For example, in the GBG, CWFIT and CICO interventions points are earned which lead to tangible rewards, such as stickers and stationary. This may promote extrinsic motivation, where the CYP is motivated to change their behaviour to yield a tangible reward. Whereas, in WOWW, there are no tangible rewards and the CYP may change their behaviour for other reasons – such as to feel a sense of pride, which is a more akin to intrinsic motivation. Also, by being solution-focused in nature, WOWW encourages collaboration with CYP – they have the agency to decide upon their goals and to rate themselves on a scale. In the other three interventions, the agency is mostly held with the teachers who choose the behaviours that earn rewards and rate those behaviours accordingly.

Thirdly, as discussed in section 2.2, there is a correlation between specific, positive feedback and the improvement of student behaviour. Nonetheless, research reports low rates of behaviour specific praise relative to general praise (Brunette and Mandel, 2010; Floress and Jenkins, 2016). Of the four interventions, WOWW is the only one that explicitly aims to strengthen the feedback given to children by teachers. The GBG and CWFIT interventions focus on teacher feedback only in the form of assigning team points for specific behaviours. The CICO intervention

provides opportunities for increased adult attention and written feedback on the daily report cards, but does not seek to strengthen teacher feedback in a systemic way within standard classroom teaching. The WOWW intervention, through coaching and modelling, focuses on giving children specific, positive praise and aims to increase the teacher's use of this type of feedback.

Finally, WOWW was the only intervention of the four that was found to have positive impacts on teachers in terms of their confidence, self-efficacy and feelings of being able to manage the classroom effectively. Teachers are recognised as vital for supporting children's academic and emotional development. In addition, as discussed in Section 2.1, teachers report stress and a lack of support in managing children's behaviours. Thus, with WOWW's focus on recognising the strengths of both teachers and students, and potentially increasing the wellbeing of both, WOWW was the most attractive intervention option.

2.5.2 Modification of the WOWW Intervention

The current study proposes to make a significant modification to the standard WOWW intervention. Namely, to adapt it from a whole-class intervention to a small-group intervention. Modifications are not uncommon in intervention literature; for example, each of the four aforementioned interventions have reported studies with modifications. Fernie and Cubeddu (2016) adapted the WOWW intervention from ten sessions to six sessions and intervention goals were set with the class teacher instead of through collaboration with the teacher and children together. Tanol *et al*. (2009), Wahl *et al.* (2016) and Wright and McCurdy (2011) tested two different versions of the GBG – one using the standard GBG procedure and the other

changing the rules of the game so that positive behaviours earned points as opposed to rule violations. Dart *et al*. (2015) and Sanchez *et al.* (2015) trialled using peer mentors instead of adult mentors to facilitate the CICO intervention. Finally, Kamps *et al.* (2015a) adapted CWFIT by providing additional, tailored support to a small number of children within the class, alongside running the standard CWFIT procedure with the whole class.

Each of these studies added valuable information about the interventions; for example, the modified CICO studies indicated that the use of peer mentors can positively impact students with externalising and internalising behaviours (Dart *et al*., 2015; Sanchez *et al.*, 2015). Empirical studies of modifications to interventions help to explore the successful components of the intervention and to investigate its utility in novel ways. For the WOWW intervention, there is yet to be any research with a small group, as opposed to a whole class, as in the present study.

2.5.3 Evidence Base of WOWW

The five studies exploring the WOWW intervention have been discussed within the systematic literature review in Section 2.4. In this section, those five studies will be examined in more detail. Table three summarises the studies in terms of their participants, setting and data collection methods. The findings of the studies seem to converge on several points which suggest that WOWW increases collaboration of children within the class, improves children's classroom behaviours and has a positive impact on teachers.

2.5.3.1 Class Collaboration

Brown *et al*. (2012), Fernie and Cubeddu (2016) and Lloyd *et al*. (2012) reported findings of children working together in more positive ways following the WOWW intervention. In each study, teachers' ratings of the class working as a team (Brown *et al*., 2012) or working collaboratively (Fernie and Cubeddu, 2016; Lloyd *et al.,* 2012) increased from pre-intervention to post-intervention, and this finding was maintained twelve weeks after the intervention ended in one study (Brown *et al*., 2012). In the post-intervention interviews or evaluation forms, the teachers' comments reflected these ratings. For example, the teacher in Brown *et al*.'s (2012) study said that there was more togetherness in the class. Similarly, in Lloyd *et al*.'s (2012) study one teacher commented that *"the children have come together as a community"* (Lloyd *et al*., 2012, p.251) and another said that WOWW had led to a *"positive feel for the whole class community"* (Lloyd *et al*., 2012, p.251). In Fernie and Cubeddu's (2016) study, the children rated themselves weekly on the goal of 'working together' and their ratings increased from 6/10 in the first week to 10/10 in the final week. The children also discussed their improved collaborative working skills in the focus group.

Table 3 - Overview of the Research Methods in the WOWW Studies

Study	Participants	Setting	Qualitative Data	Quantitative Data
Berzin *et* al. (2012)	200 students aged 7-8 years 9 teachers	USA	None collected	School data on academic performance and behaviour. Teacher-completed standardised scales of teacher efficacy, stress, and student-teacher relationships, pre- and post-intervention.

Brown *et al.,* (2012)	25 students aged 5-6 years 1 class teacher	UK	Semi-structured interview with class teacher	Teacher ratings of goals pre- and post-intervention and at follow-up. Children's within-intervention ratings of goals.
Fernie and Cubeddu (2016)	24 students aged 7-8 years 1 class teacher	UK	Teacher-completed open questionnaire Focus group with 4 CYP	Teacher ratings of children's behaviours and teacher confidence, pre- and post-intervention. Children's within-intervention ratings of goals.
Kelly and Bluestone-Miller (2009)	21 teachers	USA	None collected	Teacher ratings of children's behaviour and teacher classroom management, pre- and post-intervention.
Lloyd *et al.* (2012)	12 classes (11 classes aged 4-11, 1 class aged 13-14 years) 12 teachers	UK	Focus groups with 5-6 CYP Teacher-completed open questionnaire	Teacher ratings of children's behaviours and teacher confidence, pre- and post-intervention

2.5.3.2 Improved Classroom Behaviours

WOWW has also been indicated to improve the classroom behaviours of children. Kelly and Bluestone-Miller (2009) reported a statistically significant increase in teachers' perceptions of their classes as better behaved and their sense that students would also report better behaviour. Berzin *et* al. (2012) compared school report card data of 200 students aged 7-8 years (who participated in the WOWW intervention) with the previous year's cohort of 7-8 year olds and with the students' own data from the previous year. Their findings suggest improved on-task behaviour and academic effort following WOWW.

In Brown *et al.* (2012) the teachers' ratings of children's respect towards adults and listening skills increased from pre-intervention to post-intervention. Similarly, the children's weekly ratings of being polite, putting your hand up and being helpful increased throughout the intervention and reached ratings of 9/10 or 10/10 by the end. Fernie and Cubeddu (2016) reported similar findings; their child participants' weekly ratings of good listening increased from 5/10 in the first week to 10/10 in the last week. The children also took part in a focus group and the author's thematic analysis indicated that the children felt they had developed listening skills, were more motivated, better behaved and more able to copy positive behaviours from others. The teachers' ratings of children's respect for others also increased post-intervention. Lastly, the children in Lloyd *et al*. (2012) participated in a focus group and commented on positive changes in the behaviour of their class, such as the children being quieter, calmer, listening more and working harder.

2.5.3.3 Positive Impacts on Teachers

Positive impacts on teachers were reported in four WOWW studies. Berzin *et al.* (2012) used the Teacher's Sense of Efficacy Scale with nine teachers and noted positive improvements at post-intervention, especially in relation to teachers' perceptions of their ability to motivate students, establish a classroom management system and adjust lessons. Kelly and Bluestone-Miller (2009) devised a rating scale for their 21 teacher participants and found statistically significant positive changes at post-intervention in teacher's perceptions of themselves as effective classroom managers. Fernie and Cubeddu (2016) and Lloyd *et al.* (2012) reported increases in teachers' ratings of their own confidence from pre-intervention to post-intervention. In Lloyd *et al*. (2012) teachers commented on feeling more in control

of the classroom, more confident in their abilities and that WOWW *"highlights the areas of your teaching you do not notice as you are so involved in the learning"* (Lloyd *et al.,* 2012, p.252). The teachers also commented on changes in their practice, such as using more positive language, being better able to motivate and reward children and focusing more on positives than the negatives.

2.5.3.4 Limitations

The WOWW evidence base has a series of limitations which must be acknowledged. Firstly, with only five empirical studies to date, the findings can only tentatively recommend WOWW as an effective classroom intervention. Further research must be conducted to build an evidence base that is substantial, such as the GBG's with over 40 published studies. Secondly, as discussed in Section 2.4.7, all five WOWW studies used self-report data. Brown *et al.* (2012) and Lloyd *et al*. (2012) acknowledge that their findings may have been strengthened by the addition of structured observations pre- and post-intervention.

Brown *et al*. (2012) also note their omission of parental involvement and state that interventions may be more effective if parents are active participants. Kelly and Bluestone-Miller (2009) cite their limitations as the sample size being small and the lack of control group or measures of other classroom performance variables (e.g. attendance and test scores). Finally, only one of the five studies (Brown et al., 2012) gathered follow-up data to explore the maintenance of any changes observed post-intervention.

2.5.4 Solution-Focused Brief Therapy in Schools

WOWW is underpinned by SFBT, which builds on the strengths, resources and motivation of clients, as clients are equipped to generate their own solutions to problems (Kim *et al.*, 2017). SFBT was developed in the 1980s by social workers de Shazer (1985; 1988) and Berg (1994) – who incidentally was one of the founders of the WOWW intervention (Berg and Shilts, 2004; 2005). SFBT involves techniques such as: scaling questions, assigning homework tasks, looking for strengths or solutions, goal setting and looking for exceptions to problems.

The evidence base for SFBT is growing. Gingerich and Peterson (2013) conducted a systematic review which identified 43 SFBT studies, 32 of which reported significant positive benefits, 10 of which reported positive trends and one of which reported no observable impact. Considering child-related studies, 14 of the 43 studies explored SFBT's effectiveness in the context of children's academic and behavioural problems, 11 of which took place in school settings. 13 of these 14 studies reported significant positive outcomes or positive trends. The authors concluded that there is strong evidence of SFBT's effectiveness for a range of child-related behavioural and psychological outcomes and that SFBT is shorter and less costly than alternative interventions.

Further reviews have identified SFBT as an effective intervention for CYP with internalising and externalising difficulties (Bond *et al*., 2013). Kim *et al.* (2017) discuss that SFBT is beneficial in schools because it is strengths-based, client-centred, portable, adaptable and as brief or long as necessary. Kim and Franklin (2009) reviewed the experimental literature on SFBT in schools. Their review

yielded seven studies, four of which targeted students' behaviour in the classroom (Franklin *et al*., 2001; Corcoran, 2006; Froeschle, Smith and Richard, 2007; Franklin, Moore and Hopson, 2008). Of these articles, three noted positive impacts. For example, Franklin *et al.* (2008) found that for the 59 students in the SFBT group, their externalising behaviour score reduced to below clinical levels at post-test, whereas the scores for students in the control group changed little at post-test or follow-up. Also, internalising behaviours were found to reduce below clinical levels for the SFBT group. While promising, the evidence base is significantly smaller than for other therapeutic and behavioural interventions (such as Cognitive Behavioural Therapy). Also, there are methodological limitations in many of the studies, such as small sample sizes, lack of control groups or fidelity monitoring, limited follow-up and a reliance upon self-report data (Bond *et al*., 2013).

It is important to consider the potential limitations of SFBT. For example, a criticism levied against SFBT is its lack of exploration of clients' problems and histories. Stalker, Levene and Coady (1999) note that there are no opportunities in SFBT for clients to have their stories heard and their feelings supported. Relevant to the current study, another limitation of SFBT is that it requires clients to have developed a certain level of language in order to communicate verbally. For WOWW, the children are required to have acquired enough language to understand the verbal feedback from the coach and to participate in conversations about class behaviour. Alternative methods, such as sign language or use of visual symbols, could be trialled with CYP who have not yet developed the required language level. However, this is yet to be researched.

As briefly discussed in section 2.4.6, the WOWW intervention adopts the assumptions of SFBT through:

- Noticing positive behaviours and strengths (and through this, often highlighting exceptions to problems);
- Setting goals collaboratively, with the teachers and students taking the lead;
- Scaling i.e. rating weekly goals on a scale of 1-10; and
- Using solution focused questioning e.g. asking the class to describe the behaviours of a 10/10 class.

Despite the adaptation of the WOWW intervention in the present study, these solution-orientated principles remain intact. Consequently, this research can authentically extend the research on SFBT in schools and can also counter some of the limitations of its evidence-base by using mixed methods and including follow-up data.

2.6 Summary of Literature Review Chapter

This chapter began with a broad discussion of children's classroom behaviours and their impacts on teachers and students in school. It next explored the topic of teachers' feedback to students and its correlation with improved behaviour and relationships. In Section 2.3, the discussion began to refine towards ways of supporting teachers with children's classroom behaviours, before moving on to a systematic literature review in Section 2.4, where four specific classroom interventions were explored. This helped to set the scene for the final section of this chapter, which focused exclusively on the WOWW intervention and its origins in SFBT.

WOWW has been indicated to support children's collaboration and behaviour in the classroom and teachers' perceptions of their self-confidence and classroom management skills. Its limitations have been noted, like its small evidence base, exclusive use of self-report data, lack of parental involvement and lack of follow-up data. However, WOWW has an intuitive appeal and is a non-threatening, non-invasive way of supporting teachers and children in schools (Kim *et al.*, 2017). WOWW helps to shift the focus from problem behaviour to positive feedback, classroom goal setting and, withstanding the small evidence base, it seems likely that a strengths-focussed, supportive environment will only help children (Berzin *et al*., 2012).

In this study, the impact of WOWW is explored when it is adapted from a whole-class intervention to a small-group intervention to meet the needs of five children and their teacher. By doing this, the research provides a unique contribution to the growing literature on solution-focused interventions, secondary tier interventions and specifically, WOWW. It also adds to the on-going research about the impact of positive feedback to CYP in schools, as well as the literature on supporting children with both internalising and externalising behaviour difficulties. It is hoped that the research will answer the following questions:

1. How is the classroom behaviour of a group of Year 2 children impacted by the adapted WOWW intervention?
2. How is participation in the adapted WOWW intervention perceived by a) the group of children, b) their parents and c) their class teacher?

Following the thread of discussion presented in this chapter, the current study is underpinned by a series of notions which are supported by the included research. These notions offer a succinct summary of the literature review and have been outlined in Figure 2.

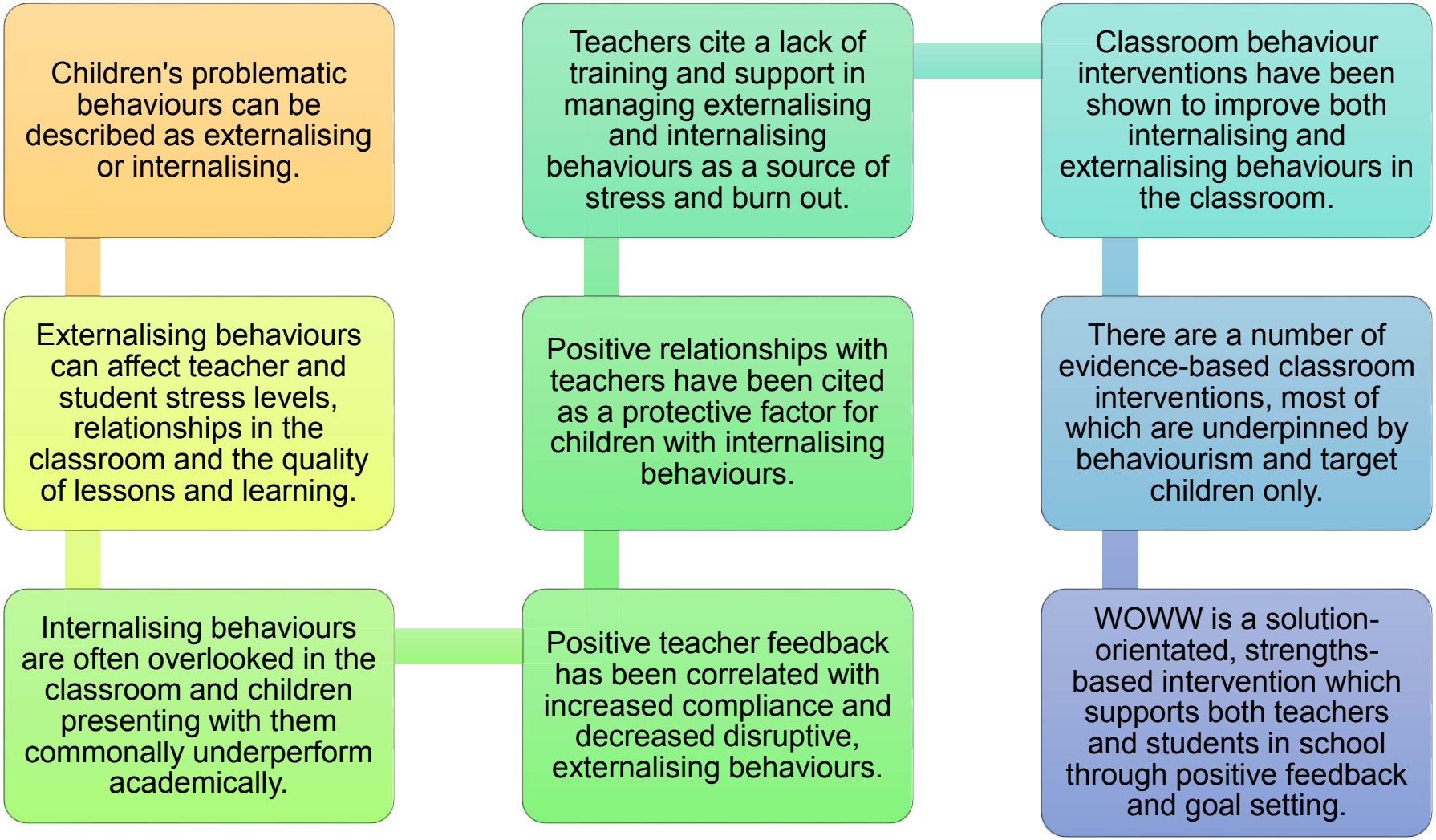


Figure 2 - Summary of the Key Notions of the Literature Review

Chapter 3: Methodology

This chapter will begin by considering the philosophical position that underpins the research. It will then outline the design of the study, including information about the design frame, pilot study, participants, data collection methods and procedure, intervention procedure and data analysis methods. It will end with a consideration of the ethics and rigour and quality of the research.

3.1 Philosophical Position

The current research is underpinned by critical realism (CR), which will be elaborated in the sections below.

3.1.1 Ontological Position

In research, ontology pertains to the nature or essence of the social phenomena being investigated. It considers questions about existence, such as whether a reality exists independent of our observation of it. Authors have conceptualised ontology in a dichotomous fashion with relativism at one end of a continuum and realism at the other (Cohen *et al.,* 2011).

Ontologically, CR assumes a realist position (Maxwell, 2012). It views reality as existing independent of our perception of it. However, reality is not a simplistic entity and CR draws heavily on Bhaskar's (2008) concept of ontological depth. Bhaskar (2008) distinguishes between three levels of reality, which he named empirical, actual and real, as depicted in Figure 3. The empirical domain encompasses all that we experience with our senses. The actual domain includes the events in our world, things that *actually* happen – whether we observe them or not. The real domain is the deepest level and consists of the mechanisms that *cause* the events that happen

in our world. Often, these mechanisms are not visible to us (Zachariadis, Scott and Barrett, 2013).

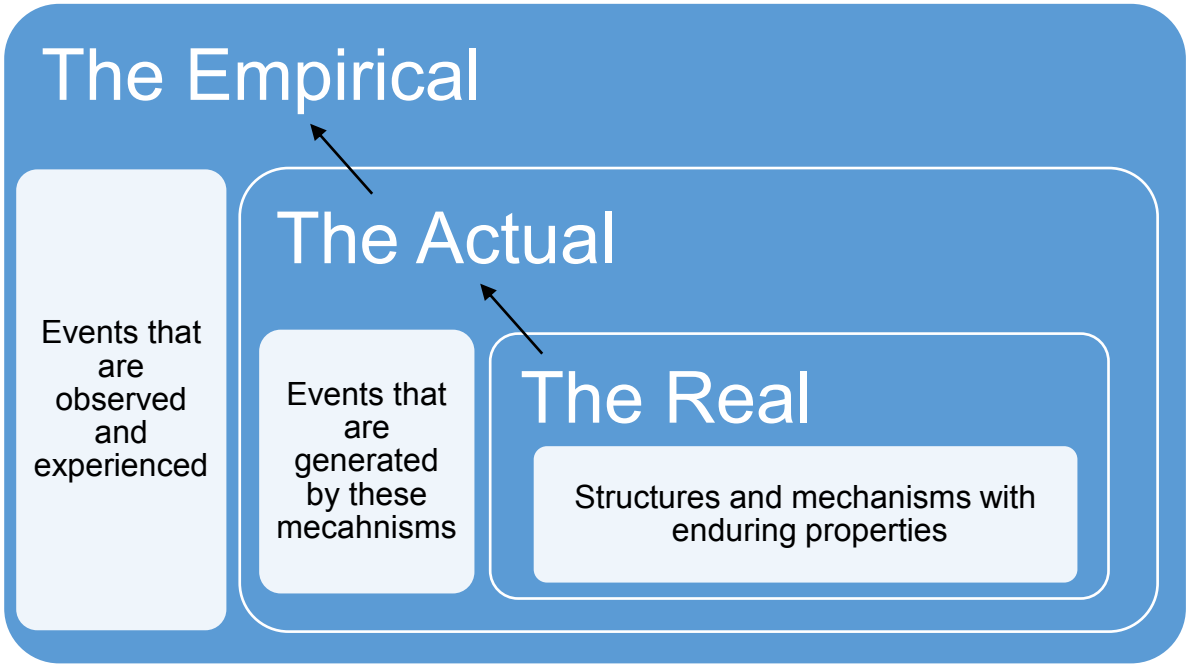


Figure 3 - The Stratified Ontology of Critical Realism (Adapted from Zachariadis *et al.*, 2013)

3.1.2 Epistemological Position

Epistemology relates to the basis of our knowledge and how it can be acquired and communicated. Like ontology, epistemology has been discussed in a dualistic way with positivism as one part of the dichotomy and interpretivism as the other (Thomas, 2013). Epistemological assumptions often arise from ontological assumptions. For example, if research is underpinned by ontological relativism its epistemological position is likely to be interpretivist, favouring subjective data collection methods. However, CR transcends this pattern as there is a clear

separation of ontology from epistemology; its ontology is realism, whereas its epistemology is interpretivism (Maxwell, 2012).

In CR, there is recognition that our understanding of reality is mediated by our cognitive processes. Research *data* is accessed at the empirical level and is thus theory-laden and subjective; two people may observe the same phenomena and make different interpretations of it. Also, *reality* in CR is stratified (as depicted in Figure 3), and so even if our view of reality was not bound by our subjective experiences, there are mechanisms assumed to be driving the perceived phenomena that are not visible to us. Consequently, our understanding of phenomena can only ever be partial (Sayer, 2000). Nonetheless, for CR, the main objective of research is to use these perceptions of events to infer about the causal mechanisms that give rise to them (Zachariadis *et al.,* 2013). This is not to be mistaken with a positivist search for single causal mechanisms, as in 'A causes B'. CR is clear that the social world is an open and complex system, impacted by multiple mechanisms. Instead, the intention for CR is to tentatively hypothesise about what may produce, generate, create or determine the observed phenomena (Easton, 2010).

3.1.3 Rationale for Critical Realism

Danermark, Ekstrom, and Jakobsen (2001) argue that dualistic thinking permeates much discussion in social research, with the aforementioned dichotomies of relativism-realism and interpretivism-positivism being two of many examples. The authors posit that these dichotomies have marked the intense debate surrounding methodologies in social science and suggest that such division jeopardises theory

production. CR bypasses these dichotomies by recognising both subjectivity and objectivity, realism and interpretivism.

The balanced, considered approach of CR which recognises the fallibility of empirical research and the complexity of the social world, whilst also maintaining the existence of an objective, independent reality fits my world view. Upon consideration of this philosophical position, (compared with others such as pragmatism, constructivism and positivism) I felt that CR best served the nature of the research. The present study seeks to understand how children's classroom behaviour is impacted by an intervention. Under a CR lens, the classroom behaviour (and any changes in response to the intervention) exists whether I am there to observe it or not. However, my understandings of that behaviour are mediated by my subjective interpretations and are limited only to the empirical domain. This does not preclude me from exploring the mechanisms underlying the observed behaviours, which will be done through triangulation with the participants' experiences and perceptions of the intervention. But, it does acknowledge that inferences are made within the culture and subjectivity of the researcher.

3.2 Study Design

3.2.1 Design Frame

A design frame is an approach to research that outlines its structure; Thomas (2013) discusses several design frames such as action research, experiments, evaluations and case studies. The choice of which design frame a research project uses will be dependent upon the philosophical position adopted and the research questions to be answered.

The current study utilises a case study design which is in keeping with CR's interpretivist epistemology. Case studies are most appropriate for answering research questions about *how* or *why* something has happened (Yin, 2009). The research questions for the current study are:

1. How is the classroom behaviour of a group of Year 2 children impacted by the adapted WOWW intervention?
2. How is participation in the adapted WOWW intervention perceived by a) the group of children, b) their parents and c) their class teacher?

These are *how* questions that require an in-depth analysis of multiple sources of information, thus a case study design is appropriate.

3.2.2 Case Study Design

Yin (2009) describes the defining features of a case study design as:

- Multiple sources of evidence
- Empirical
- In-depth
- Real-life context
- Complex social phenomena

These features fit with the present study as multiple sources of evidence (i.e. observations, questionnaires and interviews) and multiple perspectives (i.e. child, parent, teacher and researcher) were collected, highlighting the research's in-depth, empirical nature. Also, both the measures and intervention were conducted in the real-life, complex context of the classroom.

Thomas (2015) outlines that when a case study design is selected the researcher must make decisions about the case study's subject, purpose, approach and

process. He outlines specific options for each of these areas, which are summarised in Table 4. The choices made for the current research have been highlighted.

Table 4 - Case study design choices, adapted from Thomas (2015)

Subject	Purpose	Approach	Process
Special or outlier case	Intrinsic	Testing a theory	Single
Key case	**Instrumental**	**Building a theory**	Multiple
Local knowledge case	**Evaluative**	Drawing a picture, illustrative	**Nested**
	Explanatory	Descriptive	Parallel
	Exploratory	Interpretative	Sequential
		Experimental	Retrospective
			Snapshot
			Diachronic

In terms of the *subject*, the current research is a local knowledge case study, which Thomas (2015) defines as an example of something in your personal experience that you want to find out more about. For the current study, the host school is one that I visit regularly as a TEP. I have developed relationships with the staff and students and thus I have local knowledge and interest in the *subject* of the case study (the class teacher and five children). I also have knowledge and interest in the *object* of the study (the implication of WOWW, a behaviour intervention) as I am frequently asked to advise and support with classroom behaviour management.

Considering the current study's *purpose*, it is both instrumental and evaluative. Thomas (2015) defines instrumental as a study which has a specific purpose in mind, other than gaining knowledge purely for research purposes. For the current

research, the specific purpose was to support the teacher and children in the class, with or without it being reported as research. The study is also evaluative as it explores the impact and perceptions of the intervention.

The *approach* is theory building, meaning it aims to develop ideas, frameworks or models that *explain* the subject of the research (Thomas, 2015). As discussed in Section 3.1, this study is underpinned by CR, which seeks to explain the observed phenomena by exploring its underlying mechanisms and conditions.

Finally, the *process* of the current research is a nested case study design (Thomas, 2015), or as Yin (2009) calls an *embedded* case study. A nested case study has individual units that are nested within one wider case. In the current research, there are six individual units (five children and one class teacher) that are nested within the wider case of the *WOWW group*. In a nested design, the individual units are contrasted as part of the wider case, as opposed to in a multiple case study design where the emphasis is on comparing distinctly different cases. Lastly, the current case study is also diachronic, meaning that changes were measured over time.

Case studies have been criticised for lacking generalisability, not being open to cross-checking (making them susceptible to being selective and subjective) and being prone to observer bias (Cohen *et al.,* 2011). The current study addresses these limitations by adopting a mixed methods design (Section 3.2.3) and by recognising the context of the research and the researcher (Section 3.9.2). In terms of generalisation, the purpose of case study research is not to generalise findings to a wider population, but instead to contribute to the expansion and generalisation of *theory* (Section 3.9.4) (Cohen *et al.,* 2011).

3.2.3 Mixed Methods Design

Within the wider framework of a case study, the current study utilises a mixed methods design where elements of qualitative and quantitative approaches are combined for breadth and depth of understanding (Creswell and Clark, 2011). Mixed methods designs are particularly relevant for case studies with nested, embedded units (as in the current research) as they rely on holistic data collection methods (Yin, 2009). Furthermore, case studies have been described as a *"prototypical instance of mixed methods research"* (Cohen *et al.,* 2011, p.289).

The mixed methods design adopted in the current study is a convergent parallel design because the qualitative and quantitative data were collected in the same phase of the research, as opposed to sequential designs where there are distinct quantitative and qualitative phases (Creswell and Clark, 2011). The purpose of a convergent parallel design is to integrate and compare data, potentially validating one data set with the other.

The advantage of this design is that the merging of differing forms of data allows the research questions to be answered from multiple angles and perspectives (Creswell, 2015). The quantitative results yield trends and relationships, whereas the qualitative results provide in-depth and personal perspectives. This type of mixed methods design is the most common (Creswell and Clark, 2011) and fits especially well with the aim of triangulation in case study research. It is also in keeping with CR, which emphases the importance of diversity in viewpoints (Shannon-Baker, 2016).

Concerns have been raised that by mixing the differing underlying paradigms of quantitative (positivist) and qualitative (interpretivist) research, there is risk of diluting and adulterating their disparate epistemological and ontological positions (Cohen *et al.,* 2011). However, as the current study is underpinned by CR, which straddles the dualisms of methodologies, this limitation is less pertinent.

3.3 Pilot Study

Prior to the use of the data collection methods (outlined in Section 3.5.1), a small pilot study was conducted. The purpose of the pilot study was to gain experience of using the Pupil Behaviour Schedule (PBS) (Jolly and McNamara, 1992) and delivering WOWW sessions. No data from the pilot study is included in the findings of the current study. For further details of the pilot study, see Appendix 2.

3.4 Participants

The participants in the current study were five students in Year 2 (aged 6 or 7 years) and their class teacher. The parents of four of the five children participated in a post-intervention interview and are therefore included as participants.

Four of the child participants were male and one was female. The class teacher was female. The four parent participants were female. There were originally six students, however, one student moved schools at the beginning of the study and thus no data from this child is included.

The child participants were selected by the class teacher to take part in the research. The study arose organically through a planning meeting at one of the

schools I work with (Section 1.2). The initial concerns raised about each child varied and are summarised in the Table 5 (alongside some basic participant details).

Table 5 - Child Participant Details

Pseudonym	Age in years (by the end of the study)	Sex	Initial Concerns (raised by school staff)	Internalising, Externalising or Both?
Tania	7	Female	Tania is off-task for most of the time during lessons and often talks while the teacher is talking. Her work completion rate is poor. She also presents as lacking in self-esteem, having anxiety and appearing sad at times.	Both
Edward	6	Male	Edward is a daydreamer. He is often off-task, his work completion rate is poor and he can distract other children by talking. He is sometimes silly and giggly. He appears happy for most of the time.	Externalising
Bruce	6	Male	Bruce is mostly on-task during lessons. Bruce often appears sad or withdrawn, he says very little during lessons and often withdraws from group work and opportunities to speak in front of the class. He struggles to work with other children.	Internalising
Tayshaun	6	Male	Tayshaun is off-task during independent work. He is heavily reliant on adult support. He is easily distracted by his peers and talks a lot in lessons. He worries about things and seems unhappy.	Both
Luke	7	Male	Luke is mostly on-task during lessons and his work completion rate is good. Luke finds it difficult to work with other children and can be verbally or physically aggressive to them.	Externalising

3.5 Data Collection Methods and Procedure

3.5.1 Data Collection Methods

Table 6 summarises the methods used in the current study, organised by research question.

Table 6 - Overview of Data Collection Methods and Instruments

Research Question	Method	Specific Instrument
How is the classroom behaviour of a group of Year 2 children impacted by the adapted WOWW intervention?	Structured classroom observations	Pupil Behaviour Schedule (Jolly and McNamara, 1992)
	Teacher-completed questionnaire	Social Behaviour Questionnaire (Tremblay *et al*., 1992)
	Parent interview	Researcher-made semi-structured interview schedules
	Teacher interview	
	Child interview	
	Focus group (children)	
How is participation in the adapted WOWW intervention perceived by a) the group of children, b) their parents and c) their class teacher?	Parent interview	Researcher-made semi-structured interview schedules
	Teacher interview	
	Child interview	
	Child intervention component ranking activity	
	Focus group (children)	

For each of the principle data collection methods their key advantages and disadvantages have been in outlined in Table 7. It is important to note that due to the wide range of methods used in the current study, the strengths and limitations of each individual tool are less significant.

Table 7 - Strengths and Limitations of the Data Collection Methods (Cohen *et al.,* 2011; Robson and McCartan, 2016)

	Observation	Questionnaire	Interview	Focus Group
Strengths	• Direct access to phenomena in the real world • Complimentary to any other research method • First-hand account	• Can be administered without the presence of a researcher • Low cost • Demands on participants are minimal • Straightforward to analyse • Can provide participant anonymity • Can be used to measure change	• Flexible and accessible • Asking for people's views can be a shortcut to answering research questions • Line of inquiry can be modified e.g. following up on interesting responses • Non-verbal cues can help to understand verbal responses	• Efficient method because the amount/range of data is increased by simultaneous data collection • Participant enjoyment • Inexpensive and flexible
Limitations	• Observer affects the situation • Acquiring proficiency in use of a structured observation tool takes time and effort • Rosenthal-type expectancy situation (i.e. expecting positive change at post-intervention)	• Limited flexibility of response • Social desirability response bias • Ambiguities in and misunderstandings of the questions • Respondents may not treat the exercise seriously • Questions are not personalised	• Time consuming to complete, transcribe and analyse • Open to interviewer bias • Level of researcher skill is required • Can be time-consuming and tiring for participants	• Number of questions covered is limited • Group facilitation requires expertise • One or two individuals can dominate • Confidentiality may be a problem

It is also important to consider the specific instruments that were used within the study. For the structured observations, the Pupil Behaviour Schedule (PBS) (Jolly and McNamara, 1992) was used; this instrument captures data about whether individual children are on- or off-task and, if off-task, the type of off-task behaviour (e.g. inappropriate talking or disturbing other pupils). See Appendix 3 for a copy of the PBS and examples of each of the behaviour codes.

The observations were non-participation observations (Cohen *et al.,* 2011), meaning that I was not an active member of the class and instead I stood separately from the children in a position to see each of them. The method of observation was momentary time sampling at 10 second intervals. The strengths and limitations of this instrument are outlined in Table 8.

Table 8 - Strengths and Limitations of the Pupil Behaviour Schedule

Pupil Behaviour Schedule (Jolly and McNamara, 1992)	
Strengths	**Limitations**
• Provides quantitative data that can be compared over time • Can provide information about the type of off-task behaviour • Momentary time sampling is less time consuming than descriptive, running record observations • Can gather both student and teacher data • Can observe multiple children	• Requires practise and researcher skill for successful administration • In the momentary time sampling approach, some of the children's behaviours may be missed • Data is less rich than in descriptive, running record observations

For the teacher-completed questionnaires, the Social Behaviour Questionnaire (SBQ) (Tremblay *et al.*, 1992) was used; this is a 32-item adult rating scale which investigates pro-social and anti-social behaviours (aggression/disruption, anxiety and inattention)

in children aged 5-12 years (see Appendix 4 for a copy of the SBQ). The strengths and limitations of this instrument are outlined in Table 9.

Table 9 - Strengths and Limitations of the Social Behaviour Questionnaire

Social Behaviour Questionnaire (Tremblay *et al.*, 1992)	
Strengths	**Limitations**
• Measures both prosocial and antisocial behaviours and thus is partially strengths-focussed • Measures both internalising (anxiety) and externalising (disruption/aggression) behaviours • Standardised measure, so data can be compared with a control group and clinical significance levels can be calculated • Quick and easy to complete • Parent and teacher version	• No room for participants to provide additional detail to their responses • No child-version • Uses a 3-point Likert scale, which provides less detailed information than a 5-point Likert scale • May force unrealistic choices because the options are: doesn't apply, sometimes applies, certainly applies • Standardised on a Canadian population of children, so comparisons to other populations may be limited

For the interviews, semi-structured interview schedules were devised for individual interviews with the children, parents and the class teacher and for the focus group with the children. Some questions were based on questions asked in other WOWW studies (Brown *et al*., 2012; Lloyd *et al*., 2012) and others were unique to the current study e.g. questions about WOWW being adapted to a small-group intervention. See Appendix 5 for the interview schedules.

3.5.2 Data Collection Procedure

The procedure for collecting data before and after the intervention is represented in Figure 4.

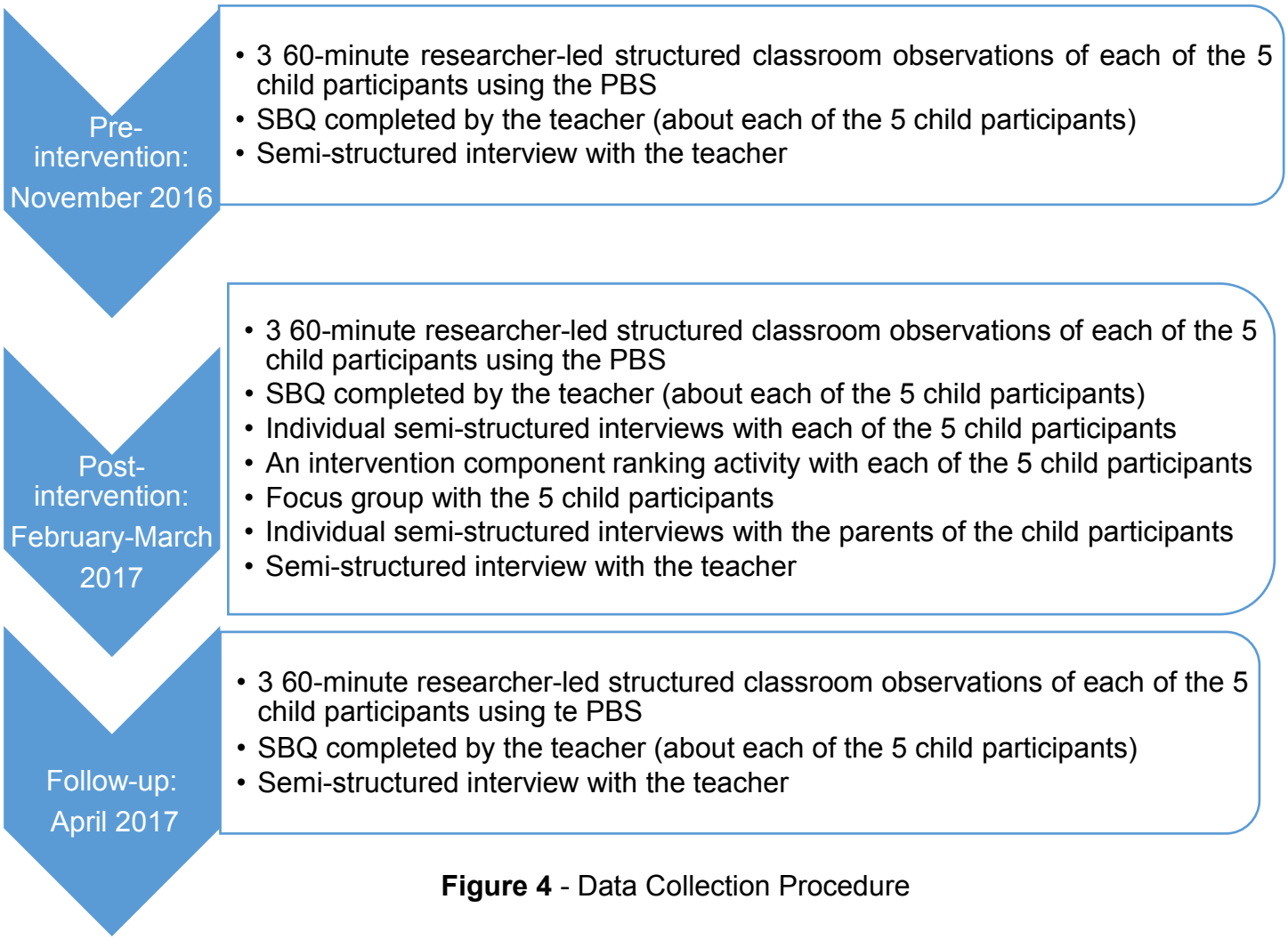


Figure 4 - Data Collection Procedure

3.6 Intervention Procedure

The WOWW intervention was delivered over 10 sessions from November 2016 to February 2017 (with the school closed for two weeks over Christmas). For this study, the WOWW coach was the researcher. The procedure for the current study was adapted from working with a whole class to working with five students within one class

and their teacher. An outline of the adapted procedure for the current WOWW study is provided in Figure 5.

Prior to the intervention, I met with Mrs Goodman (not her real name) for 45 minutes and introduced the WOWW intervention and the solution-orientated principles that govern it. At this time, I talked through the researcher-made WOWW handbook (Appendix 6) and answered any queries about the intervention. In addition, I emphasised that WOWW is a coaching intervention and that as the WOWW coach I was available for her to contact at any point via email, especially if she had comments or concerns about one of the five children in the WOWW group. The WOWW handbook was also given to the parents of the five children prior to the intervention beginning. The three phases of WOWW are elaborated in the following sections.

Phase 1	Phase 2	Phase 3
•**Weeks 1-3** •November 2016 •1 45-minute classroom observation of the 5 children and the class teacher each week •Positive feedback given to each child and the teacher in front of the class	•**Weeks 4-6** •December 2016 - January 2017 •1 45-minute classroom observation of the 5 children and the class teacher each week •Positive feedback given to each child and the teacher in front of the class •Goal setting and scaling activites outside of the classroom •Handwritten letters given to the five children.	•**Weeks 7-10** •February 2017 •1 45-minute classroom observation of the 5 children and the class teacher each week (focussing on goal-specific behaviour) •Positive feedback given to each child and the teacher in front of the class •Goal setting and scaling activites outside of the classroom •Handwritten letters given to the five children. •Daily scaling of goals with teacher.

Figure 5 - Intervention Procedure

3.6.1 Phase One of WOWW

At the beginning of the intervention I introduced myself to the class and explained that I would be visiting weekly and working with five of the students within the class. All children were familiar with my presence due to the three observations prior to the intervention beginning, the five focus children were especially familiar with me due to our meetings to gain their consent to participate.

During the observations in phase one I spent 45 minutes watching each of the 5 children and the class teacher and writing comments of my observations. The comments were not accompanied with interpretations or judgements and were instead simple descriptions of observed behaviours e.g. *"I saw how you came to sit on the carpet as soon as Mrs Goodman asked", "I noticed you looking at Mrs Goodman while she was reading to the class"*. At the end of each lesson I chose a salient, positive observation for each child and the teacher from my written comments, and fed these back to each participant in front of the class (see Appendix 7 for examples of comments given).

3.6.2 Phase Two of WOWW

During phase two, the observations continued in the same way as in phase one. In addition, at the end of the observations I worked with the group of five children and the class teacher in a small room outside of the classroom for between 5 and 15 minutes each week. During this time, the teacher and group of children decided on two or three classroom goals to work on as a group. They would rate these goals on a scale from 1 to 10 (by holding up their fingers to indicate a number) on how much the goal was currently being achieved. Goals included things like looking at the teacher while she was talking, sharing ideas with the class, smiling and showing enthusiasm, ignoring distractions and sitting still during carpet time (see Appendix 8 for a list of the

goals and their ratings each week). I would add up the children's ratings and calculate a mean rating for the group, rounded to the nearest whole number. The goals and ratings would be written onto an A3-sized poster and displayed at the front of the classroom. See Image 1 for an example of the poster used.

WOWW Group

(Names of children and teacher)

Date: 18.01.17 – 25.01.17

Our Goals:

1. _____

2. _____

3. _____

Goal	1	2	3	4	5	6	7	8	9	10
1										
2										
3										

What will help us to become even better?

_____

_____

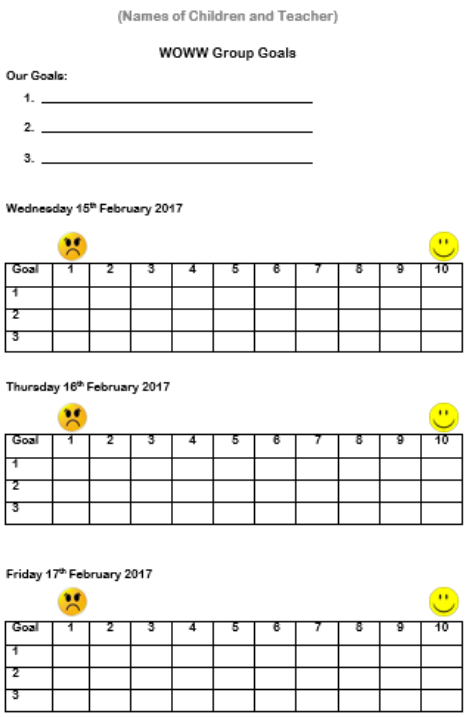
Image 1 - WOWW Poster of Weekly Goals

I would then ask questions about what a higher rating would look like in the classroom. These questions would sometimes be explored practically through role play if the children struggled with the abstract nature of the questioning. For example, one of their goals was to ignore distractions, so the group role played what a 10/10 for ignoring distractions would look like, while I made silly faces and noises. In this phase, I also began writing a short, handwritten letter to each child with feedback about positive things I had noticed them doing during the lesson – this strategy was used by

Berg and Shilts (2004) in the development of the WOWW intervention. The oral and written feedback at this time was not directly linked to their goals, and were instead general positive observations that I had made.

3.6.3 Phase Three of WOWW

The final phase continued in the same way as phase two with the weekly 45-minute observations, positive feedback in front of the class, short activities outside of the classroom which included goal setting and scaling and giving the handwritten letters. In this phase, the observations and feedback (both oral and written) were focused on the goals that the group had set the previous week. The key addition in this phase was that the teacher also rated the group on their goals at the end of each school day and fed this back to the group. See Image 2 for an example of the daily rating sheet used by the teacher.



(Names of Children and Teacher)

WOWW Group Goals

Our Goals:

1. _____
2. _____
3. _____

Wednesday 15th February 2017

Goal	1	2	3	4	5	6	7	8	9	10
1										
2										
3										

Thursday 16th February 2017

Goal	1	2	3	4	5	6	7	8	9	10
1										
2										
3										

Friday 17th February 2017

Goal	1	2	3	4	5	6	7	8	9	10
1										
2										
3										

Image 2 - WOWW Poster with Daily Goal Ratings

3.7 Data Analysis Methods

3.7.1 Quantitative Data Analysis

Details of the quantitative data collected to answer each research question are summarised in Table 10. Due to the study's critical realist philosophical position and small sample size (n = 5), the quantitative data were analysed using descriptive statistics only. CR refutes statistical explanation as being merely descriptions of correlations which do not add to understanding the underlying mechanisms that produce phenomena (Sayer, 2000). Consequently, the raw scores from the data were converted to means and percentages and were compared pre-intervention, post-intervention and at the follow-up stage. This method of analysing quantitative data is also in line with the research's case study design, which emphasises depth and interpretivism over statistical generalisability (Thomas, 2013). The quantitative data are presented in Chapter 4 using brief descriptions, tables and graphs.

Table 10 – Summary of Quantitative Data Collected

Research Question	**Quantitative Data**
How is the classroom behaviour of a group of Year 2 children impacted by the adapted WOWW intervention?	• Mean percentages of students' on- and off-task behaviour from the PBS; • Mean percentages of the type of off-task behaviour from the PBS; • Mean scores of: aggression/disruptiveness, prosocial behaviours, anxiety and inattention from the teacher-completed SBQ; • Teacher-completed ratings of level of concern about students (1-10 scale); and • Teacher-completed ratings of level of group goal completion (1-10 scale).
How is the adapted WOWW intervention perceived by the children, their parents and their class teacher?	• Child-completed rankings of the intervention components (1-5 scale).

3.7.2 Qualitative Data Analysis

Details of the qualitative data collected to answer each research question are summarised in Table 11. All interview and focus group data were transcribed verbatim by the researcher.

Table 11 – Summary of Qualitative Data Collected

Research Question	**Qualitative Data**
How is the classroom behaviour of a group of Year 2 children impacted by the adapted WOWW intervention?	• Section one of the transcribed semi-structured interviews with the class teacher at pre- and post-intervention and follow-up stages. The interview questions in section one asked the teacher to: talk about the classroom behaviour of each child for one minute, rate levels of concern and set and scale goals for the group (see Appendices 5.1 - 5.3 for interview schedules).
How is the adapted WOWW intervention perceived by the children, their parents and their class teacher?	• Section three of the transcribed semi-structured interview with the class teacher at post-intervention stage; • Section two of the transcribed semi-structured interview with the class teacher at follow-up stage; • Transcribed, semi-structured individual interviews with the children; • Transcribed focus group with the children; and • Transcribed individual interviews with the parents of four of the five participating children. The interview questions included asking participants' views on likes and dislikes of WOWW, its impact on the children and teacher and whether it would be recommended to others (see Appendix 5.1-5.6 for interview schedules).

For research question one (about changes in the children's behaviour), the teacher's comments from the first section of the pre-intervention, post-intervention and follow-up interviews have been integrated with the quantitative data. In Sections 4.1.1-4.1.5,

the teacher's comments about individual children have been presented alongside quantitative data from the observations and in Sections 4.1.6-4.19, the teacher's comments about the group of children have been presented alongside quantitative data from the observations, questionnaires and teacher ratings of concern and goal achievement.

The rationale for presenting the qualitative data intermittently throughout section 4.1 was to fulfil the required depth of a case study design. Each child within the group is a nested unit within the wider case of the 'WOWW group', thus, presenting the quantitative and qualitative data together adds richness and cohesion when considering the behaviour change of the children. Under a CR lens, the quantitative data is illustrative and descriptive only and is acknowledged to be of limited utility in uncovering the mechanisms that produce the phenomena it describes (Zachariadis *et al.,* 2012). Qualitative data, on the other hand, has more of a profound role in CR (Zacahriadis *et al.,* 2012) and, in this case, adds context through illuminating the teacher's experiences of behaviour change in the classroom.

For research question two (about participants' perceptions of the intervention), the data has been presented in two sections – children's perspectives (Section 4.2) and parents' and teacher's perspectives (Section 4.3). The children's data have been presented in the form of the interview question that was asked and a summary of the responses given, similarly to the presentation used in the WOWW study by Lloyd *et al.* (2012). The reason for this was the small amount of data collected; the children's individual interviews varied in length between 1 minute 21 seconds and 2 minutes 19 seconds. With the focus group included, the total amount of data was approximately 19 minutes. The children's responses were often single words or short sentences. Thus, it was decided that the clearest and most authentic way to preserve and present

the children's views was using a surface level analysis and a question an answer style format.

For the parent and teacher interviews, a thematic analysis was completed as responses were lengthier and patterns and themes could be drawn from the data. The process of thematic analysis was guided by Braun and Clarke's (2006) six phases of analysis, as summarised in Table 12. Thematic analysis is a complementary method for the research's CR underpinning because it sits between the two poles of essentialism and constructionism (Braun and Clarke, 2006).

Table 12 - Phases of Thematic Analysis (adapted from Braun and Clarke, 2006)

Phase	Description
1. Familiarising yourself with your data	Repeated reading of the data in an active way – searching for meanings and patterns and noting down ideas.
2. Generating initial codes	Identification of interesting aspects across the entire data set – coding as many potential themes/patterns as possible.
3. Searching for themes	Sorting the long list of codes into potential themes and collating all relevant data within the identified themes.
4. Reviewing themes	Checking the identified themes in relation to the coded extracts and the entire data set. Generating a thematic map.
5. Defining and naming themes	Ongoing analysis to generate clear definitions and names for each theme.
6. Producing the report	Selection of poignant and compelling extracts that relate back to the analysis of the research question and literature. Extracts should be presented within an analytic narrative and go beyond description.

3.8 Ethical Considerations

3.8.1 Ethical Considerations and Management

Ethical approval was granted by the University of Birmingham's Ethical Review Committee on 21st September 2016. Ethical considerations made in the current study

were guided by the British Psychology Service (BPS, 2009) and the British Educational Research Association (BERA, 2011). The general ethical considerations and ways they were managed are summarised in Table 13.

Table 13 - Overview of Ethical Considerations

Ethical Consideration (BPS, 2009; BERA; 2011)	**Management in the Current Study**
Participants must be given ample opportunity to understand the nature, purposes and consequences of the research so that they can give informed consent.	The child, parent and teacher participants consented to the research by reading a project information sheet and signing a consent from, all of which were explained in person by the researcher (See Appendices 9.1-9.6). An information letter was also sent to the parents of the other children in the class about the intervention taking place (See Appendix 9.7).
Researchers must recognise the right of any participant to withdraw from the research at any time and without reason, and this right must be explained to all participants.	Participants' right to withdraw was explicitly stated in the participant information sheets and consent forms for the teacher, children and parents (Appendices 9.4-9.6). In addition, the researcher talked to the children about their right to withdraw and different ways that they can do this.
Participants have a right to confidentiality and should be informed of any limitations of the researcher providing this confidentiality.	The child participants were assigned a pupil number that was used throughout the data collection and analysis, including during the interviews. The pupil numbers were converted to pseudonyms for the write-up of the study. Participants were informed that data from the study would be stored securely using an encrypted device for ten years.

The BPS (2009) and BERA (2011) guidelines also stipulate that participants should not come to any harm. It was felt that risks of harm were low in the current study, nonetheless, specific risks and the way they were managed are summarised in Table 14.

Table 14 - Ethical Risks and Management

Ethical Risks	**Management in the Current Study**
The child participants may find it uncomfortable to receive praise in front of their class.	Alternative methods of praise were available for the children (e.g. letters or private praise).
The children may find the focus group or interviews uncomfortable.	The teaching assistant for the children's class was available to attend each interview and the focus group.
Other children in the class may feel demotivated by not receiving specific praise in front of their class.	On the days of the WOWW intervention sessions, the class teacher gave individual, specific praise to each child overtly in front the class. A register was used to ensure no child was missed.
The class teacher may experience stress in relation to the weekly observations during the WOWW visits.	The observations focused on positive aspects of the teacher's practice only. A collaborative relationship was developed between the researcher and the teacher. Also, the class teacher was regularly reminded of her right to withdraw.

3.8.2 Feedback to Participants

After all of the data was collected and analysed, I provided feedback to all participants. For the five parents, I sent a letter home summarising the progress that their child had made in terms of on-task behaviours and shared some of the teacher's positive comments (see Appendix 10.1 for an example).

For the participating class teacher, I met with her for 30 minutes and shared a summary of the findings. During this time, I shared the themes from the thematic analysis to check that they were reflective of her views. I sent a letter to her and the headteacher of the school thanking them for their participation and outlining the study's results (see Appendix 10.2).

For the five children, I ran a celebratory session in the school hall where I talked through the findings of the study using child-friendly language. We also talked through how much we had enjoyed the intervention, the reasons why it needed to end and what we had learned from it. The children decorated gingerbread men and we did activities such as a compliment circle, where each child shared a positive comment about the person next to them.

3.9 Rigour and Quality

I have taken several steps to ensure that this research is as rigorous and high-quality as possible. In this section I will briefly discuss triangulation, positionality and context and trustworthiness. This section will then conclude with a consideration of the generalisability of the findings.

3.9.1 Triangulation

The current study utilises two types of triangulation: data triangulation and methodological triangulation (Denzin, 1988). Data triangulation is achieved by using multiple methods; in the current study interviews, observations, questionnaires and ranking and scaling activities were used. Methodological triangulation is achieved by combining qualitative and quantitative approaches as adopted in the convergent, parallel mixed methods design of the current study (Section 3.2.3). Triangulation is viewed as enhancing rigour by providing multiple perspectives on the phenomena, which is especially important for case studies (Thomas, 2015).

3.9.2 Positionality and Context

Positionality pertains to an acceptance of the researcher within the research, an understanding that their likes, dislikes, backgrounds, cultures and perspectives will affect their interpretation of the research phenomena (Thomas, 2015). As the

researcher, the following information may be useful to position me within the research topic of children's classroom behaviours:

- I have fond memories of my time at school, where I enjoyed positive relationships with peers and teachers. I received regular, positive feedback from adults and felt my efforts and achievements were well recognised;
- In my practice as a TEP, a significant proportion of my time is spent completing classroom observations. I am often disappointed in the lack of positive feedback shared with children and the reliance on external rewards and charts as mediums for providing praise;
- I believe that children have an innate desire to learn and that fundamentally teachers want to care for and support children in their development of knowledge and skills. Yet in practice there appears to be discord between teachers and children;
- I feel strongly that strengths-based, solution-focused approaches support teachers and children in class and should be used more widely in schools.

It is acknowledged that my interests and beliefs in this area may shape my interpretations of the current study, however, this limitation is somewhat reduced by using of a variety of methods from different participants' viewpoints.

It is also important to give a rich description of the context in which the research was undertaken. The participants were part of smaller-than-average mainstream primary school which has one class per year group. The school was rated as outstanding by OFSTED in 2015. It is a Church of England school where Christian values are taught and embedded within the culture of the school. Its proportion of pupils from minority ethnic backgrounds, those receiving support from the pupil premium fund and those with special educational needs and disabilities is above the national average. Prior to

and during the research, the school was one that I worked with as a TEP, meaning that the context and many of the individuals within it were familiar to me.

Considering the specific class that the research was conducted in, the class had 30 Year 2 children, two teaching assistants and one class teacher. One of the teaching assistants worked with a group of 4-5 children outside of the classroom for small-group tuition so typically there were two adults and 25-26 children in the class. The class was mixed in terms of sex, ability and ethnicity.

3.9.3 Trustworthiness

Trustworthiness was established in the current study by adopting recommendations from Teddlie and Tashakkori (2009) and Cohen *et al.* (2011). Namely, I retained an audit trail of raw data for both quantitative (e.g. raw observation scores) and qualitative (e.g. initial codes generated in thematic analysis) measures, which are reported as appendices. Also, I ensured that interview data was recorded accurately by using a Dictaphone and transcribing it verbatim. Transcripts and quantitative data were read over several times to check for accuracy. Considering qualitative data analysis, I used a systematic approach, guided by Braun and Clarke (2006), to complete a rigorous thematic analysis. I then checked the generated themes with the class teacher to ensure that my interpretations were in line with her views.

3.9.4 Generalisability

The purpose of a case study is not to generalise findings to a wider population (Thomas, 2015). Instead, case studies seek to develop context-specific theories, probing beneath the research phenomena in attempt to understanding its meaning. These theories may then help researchers to understand other similar cases,

phenomena or situations (Cohen *et al.,* 2011), but there is no anticipation that the findings represent a wider group than the case study. Case studies use a process of *abduction*, which is also a term used in CR. Abduction involves making judgements concerning the best explanation for the findings of the research (Thomas, 2015). This is in keeping with the purpose of research underpinned by CR, which seeks to identify the mechanisms and conditions of the observed phenomena.

Chapter 4: Presentation of Findings

In this chapter, the findings of the study will be presented in relation to the research questions. In Section 4.1, findings on children's behaviour will be reported. Next, the perceptions of the children (Section 4.2) and the teacher and parents (Section 4.3) will be presented. For raw data obtained by the PBS, see Appendix 11 and for raw data obtained by the SBQ, see Appendix 12. For an example of a coded section of an interview transcript, see Appendix 13.

4.1 Findings for Research Question 1 - How is the classroom behaviour of a group of Year 2 children impacted by the adapted WOWW intervention?

Findings for this research question will firstly be presented in relation to each child and then for the children as a group.

4.1.1 Tania

Teacher Interview Data

In the first interview, prior to the WOWW intervention, Mrs Goodman described Tania in the following ways:

"If I'm talking in front of the class she won't be listening or she'll be playing with something or she'll be trying to talk to her neighbour…when it comes to doing her work…she doesn't know what she is doing and then she's reluctant to ask for help"
"…she's <u>always</u> off-task and <u>always</u> trying to distract other children"
"I'm concerned about her attainment and I think it's her behaviour that's affecting her attainment and actually she can do really well. But because she's not listening, she's not able to produce the work that I expect"

After the intervention, Mrs Goodman described Tania as:

"…she's just so different like before she'd be like "I need to go to the toilet" "I need to do this" "I need to do this", anything to distract her from her learning… but now she's always so focused"
"…very focused, she is very good now at ignoring distractions and making sure that she's on task"

During the follow-up interview six weeks after the end of the intervention, Mrs Goodman said:

"before she used to come in slightly upset…but recently she's very happy she comes in happy she's focussed she does her work if she doesn't know what she's doing she'll put her hand up now or she'll ask somebody. Before she would kind of just sit there and distract other children or just not doing anything and it would be at the end of the lesson where I would notice actually she hasn't done any work but now she's doing her work and she knows what she needs to do in order to complete her work"

Structured Classroom Observations:

The rate of Tania's on-task behaviour increased from a mean average of 41% before the WOWW intervention was implemented to 93% after. Six weeks following the end of the WOWW intervention, the rate of Tania's on-task behaviour was 96%. This is represented in Figure 6.

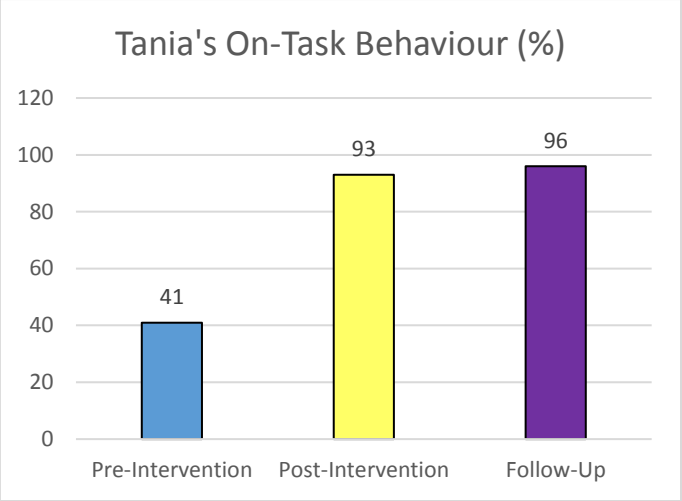


Figure 6 - Tania's Mean On-Task Behaviour (%)

4.1.2 Tayshaun

Teacher Interview Data

In the initial interview with Mrs Goodman prior to the WOWW intervention, she described Tayshaun in the classroom as:

"…he seems to be listening but it's very much, he's looking at me but it seems to be going over his head. He's looking but he's not engaged"
"…in terms of attainment he's the lowest, in the lowest group in our class…it's just making sure he's always on task"

In the post-intervention interview, Mrs Goodman said the following about Tayshaun:

"…*this child at the moment is doing really well. Always focused, always willing to participate, will put his hand up, sometimes he shouts out the answer because he's just really eager to tell me the answer. Sometimes he still daydreams but once you ask him a question or get him focussed he'll give you an answer and think about what you've done throughout the lesson. He's on-task a lot better than he was before"*

In the follow-up interview, six weeks after the intervention finished, Mrs Goodman said:

"…[I've] seen a complete change in him…he's a lot more focussed...he still likes to distract other children but from what he was like before he has made huge improvements"

Structured Classroom Observations:

The rate of Tayshaun's on-task behaviour increased from a mean average of 57% before the WOWW intervention was implemented to 71% after. Six weeks following the end of the WOWW intervention, the rate of Tayshaun's on-task behaviour was 80%. This is represented in Figure 7.

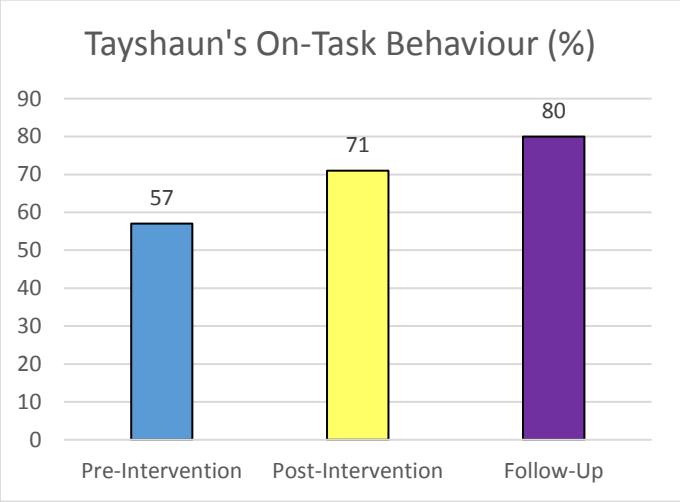


Figure 7 - Tayshaun's Mean On-Task Behaviour (%)

4.1.3 Bruce

Teacher Interview Data

In the first interview, Mrs Goodman talked about her wishes and concerns for Bruce:

"My wish would be for him to come out of his shell a little bit more because he's very, very much in his shell and he doesn't talk much"
"…he's actually quite able and if he could just ask for help—and normally it's just something really small—just for reassurance I think he needs. But because he doesn't ask, he just sits there and then he might start doing something else because he's not on-task"

"…with him it's getting him to talk about what he's doing so that if he has made any mistakes or if he needs any help we can guide him"

In the post-intervention interview, Mrs Goodman said:

"Bruce has just come out of his shell so much"

And in the follow-up interview, she gave an example of his increased confidence:

"… yesterday we had a theatre company come in to do a Christopher Columbus workshop and in one of the parts—obviously this lady didn't know what he was like—and chose him to be Christopher Columbus and he had to shout things and he was doing it! It wasn't holding him back whereas before he would have just put his head down and not said anything but he was fine he was absolutely fine so he's doing amazing. In class, in his learning, his education he's doing really well"

Structured Classroom Observations:

The rate of Bruce's on-task behaviour increased from a mean average of 71% before the WOWW intervention was implemented to 98% after. Six weeks following the end of the WOWW intervention, the rate of Bruce's on-task behaviour was 99%. This is represented in Figure 8.

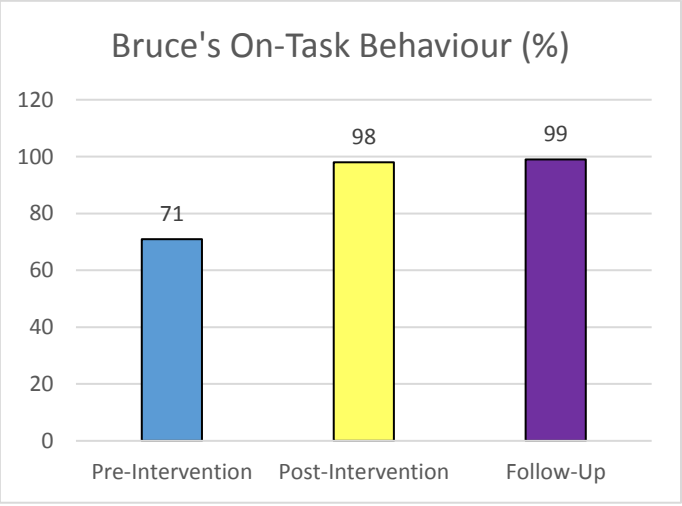


Figure 8 - Bruce's Mean On-Task Behaviour (%)

4.1.4 Edward

Teacher Interview Data

In the first interview, Mrs Goodman described Edward's presentation in lessons as:

"…he's off-task most of the time, if he's interested in the subject he will listen but sometimes he gets so excited that he just wants to say what he wants to say and he won't listen to what the adult is saying or what the other person is saying because he just wants to have his story"
"…when he is off-task and we go and help him and we sit down and do a little bit of one to one, sometimes he still doesn't produce it because he will just sit there and he will kind of just come to a blank and he just won't do anything"
"…he is actually quite a bright child, he has fantastic ideas…but because he's not listening he doesn't know what's expected and he's not motivated"

After the WOWW intervention, Mrs Goodman descried the changes in Edward:

"…previously Edward was always talking always distracting others…but that seems to have really calmed down…recently I haven't spoken to him about his behaviour so he's definitely improved"
"Edward has made tons of progress I mean I don't even mention his name anymore because he is always on task, he's always doing the right thing"
"[before] if he wasn't sure what to do he would just sit there for the whole lesson…but now he will put his hand up and ask for help or he will talk to his maths partner"

In the follow-up interview, six weeks after the WOWW intervention stopped, Mrs Goodman said that Edward is:

"…a lot more focussed, before, if he didn't know what to do he would kind of go into a kind of shell and if you even tried to talk to him he wouldn't really come out of that shell, whereas now if he doesn't know what to do he'll just say, but because he's listening he knows what to do so he's not going into the shell, whereas before he wasn't listening"

Structured Classroom Observations:

The rate of Edward's on-task behaviour increased from a mean average of 60% before the WOWW intervention was implemented to 87% after. Six weeks following the end of the WOWW intervention, the rate of Edward's on-task behaviour was 88%. This is represented in Figure 9.

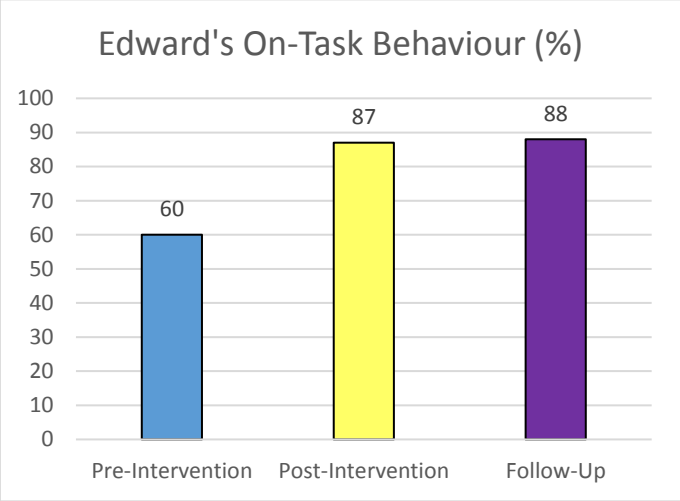


Figure 9 - Edward's Mean On-Task Behaviour (%)

4.1.5 Luke

Teacher Interview Data

In the pre-intervention interview, Mrs Goodman shared her concerns about Luke:

"…it's his relationships with his peers that I am most concerned with because he doesn't seem to have good relationships with his peers"
"…it would actually be nice for me to see him getting along with the rest of the children in the class"
"I know he can actually do well…however he gives me enough work to please me but I don't think he's doing his best"

At post-intervention, Mrs Goodman's concerns remained:

"…he still has a few issues with working alongside other children and using kind words and making sure that he's telling the truth so in that respect he hasn't really improved but that's more of a 'self' issue and we're working on that as a school and getting him some intervention to help with that"

However, she had noticed other improvements with Luke:

"But behaviour in class and in terms of learning he seems to be a lot more on task, if he finishes he won't just really quickly come up to me and say I'm finished he'll try and check his work"

"…now he takes his time and he can really think about what can make him a good learner and what kind of things I expect him to do as well"

In the follow-up interview, Mrs Goodman said:

"…he has his ups and his downs and there are still times where he will not listen and he will just do what he wants to do but I think that's just the kind of person that he is"

Structured Classroom Observations:

The rate of Luke's on-task behaviour increased from a mean average of 69% before the WOWW intervention was implemented to 96% after. Six weeks following the end of the WOWW intervention, the rate of Luke's on-task behaviour was 95%. This is indicated in Figure 10.

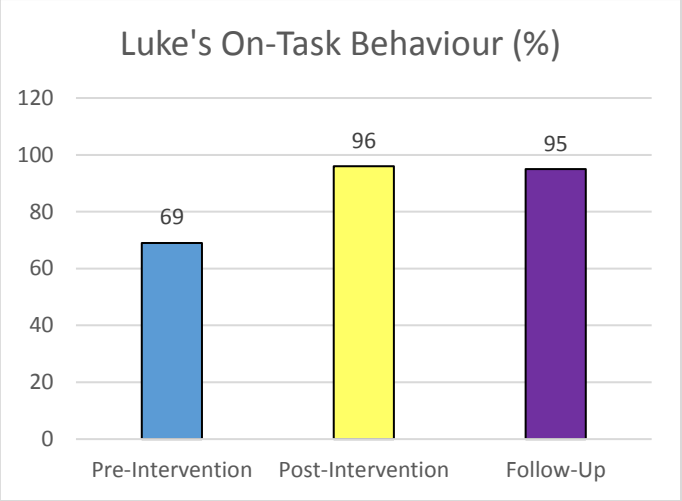


Figure 10 - Luke's Mean On-Task Behaviour (%)

4.1.6 Group Observation Data

4.1.6.1 Group On-Task Behaviour

The PBS indicated that the on-task behaviour of the group of five children increased by 32%, from a mean score of 60% at pre-intervention, 89% at post-intervention and 92% at follow-up. These data are represented by Figure 11.

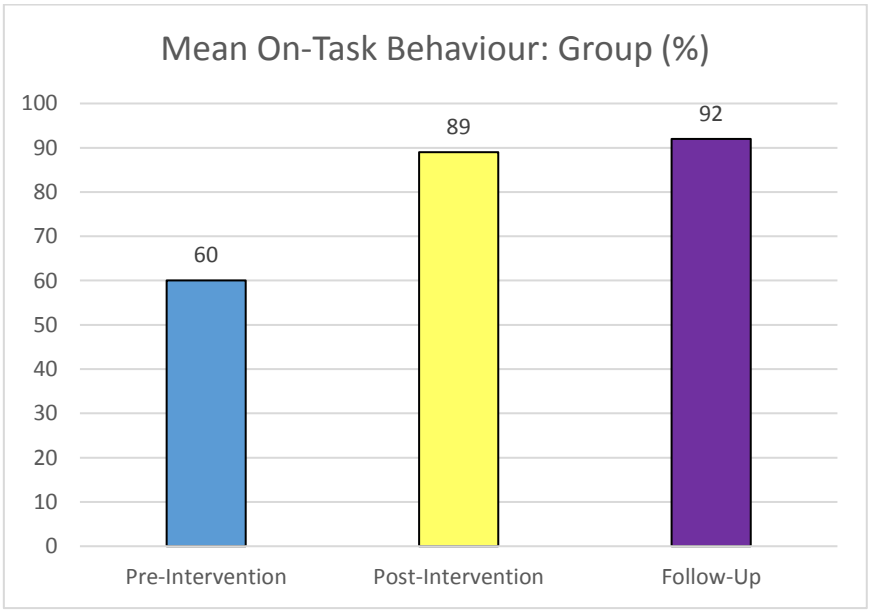


Figure 11 - Mean On-Task Behaviour for Group (%)

Each child's on-task behaviour increased after the WOWW intervention. Tania's increase was the largest at 55% and Tayshaun's was the smallest at 23%. Three of the five children reached 96% or higher at either post-intervention or follow-up. Four of the five children's on-task behaviour further increased at follow-up stage. This is represented in Figure 12.

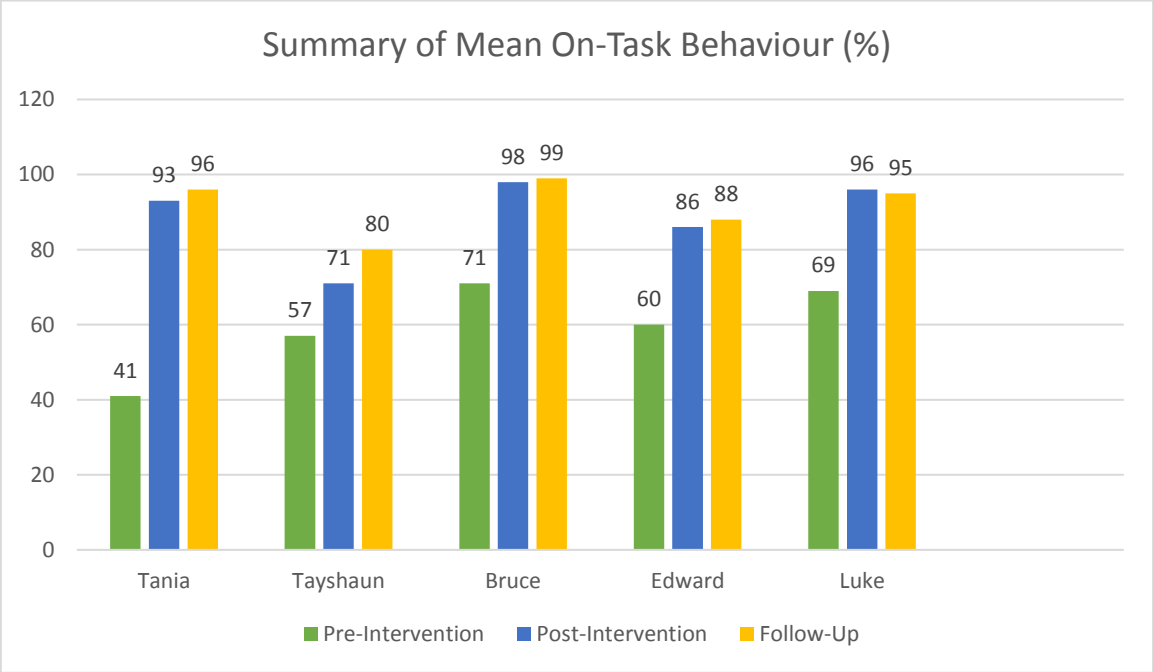


Figure 12 - Summary of Each Child's Mean On-Task Behaviour (%)

In the follow-up interview Mrs Goodman was asked about whether the children had maintained the positive changes that she had reported in the post-intervention interview. In line with the observation data in Figure 11, Mrs Goodman reported:

> *"They've managed to stay the same I feel, they've taken it all on board and there hasn't been that – you know sometimes when an intervention ends and they kind of forget everything – there hasn't been any of that they've just continued as they were. I don't know if something has gone in internally, it's just become part of their everyday way of doing things. So no I don't think they've gotten any worse because it's in there now it's like a*

personal quality. It's made them think about what they're doing in class – are they distracting others, are they listening and I think they've become more aware of it now"

4.1.6.2 Types of Off-Task Behaviour

The PBS was also used to measure the rates of different *types* of off-task behaviours. In all phases of the research, inattentiveness was the most frequent type of off-task behaviour. In the pre-intervention phase, the group of children spent an average of 16% of the observed lessons being inattentive. This reduced to 6% at post-intervention and 5% at follow-up; meaning a total reduction in inattentiveness by 11%.

Similarly, for talking, the group spent an average of 13% of the observed pre-intervention lessons talking at inappropriate times. This reduced to 3% at post-intervention and 2% at follow-up, indicating another 11% decrease. The other off-task behaviour types that were coded (out of seat, disturbing pupils, disturbing teachers and in-seat off-task) all reduced to zero levels by follow-up observations, meaning that those behaviours were no longer displayed during the classroom observations. These data is represented in Table 15.

Table 15 - Mean Type of Off-Task Behaviour for Group (%)

	Pre-Intervention (%)	Post-Intervention (%)	Follow-Up (%)
Inattentive	16	6	5
Talking inappropriately	13	3	2
Out of seat	5	2	0
In-seat off-task	4	0	0
Disturbing pupils	2	1	0
Disturbing teacher	1	0	0

Each type of off-task behaviour reduced between pre-intervention observations and post-intervention observations, and then further at the follow-up phase – as evidenced in Table 15. This would be expected considering that, overall, off-task behaviour reduced from 40% at pre-intervention to 11% at post-intervention and 8% at follow-up. However, it is not only the *frequency* of off-task behaviours that reduced, it is also the *complexity*. Prior to the WOWW intervention, the group of children were engaged in six off-task behaviour types; this reduced to four at post-intervention and two at follow-up. This is better represented by the pie charts in Figures 13, 14 and 15.

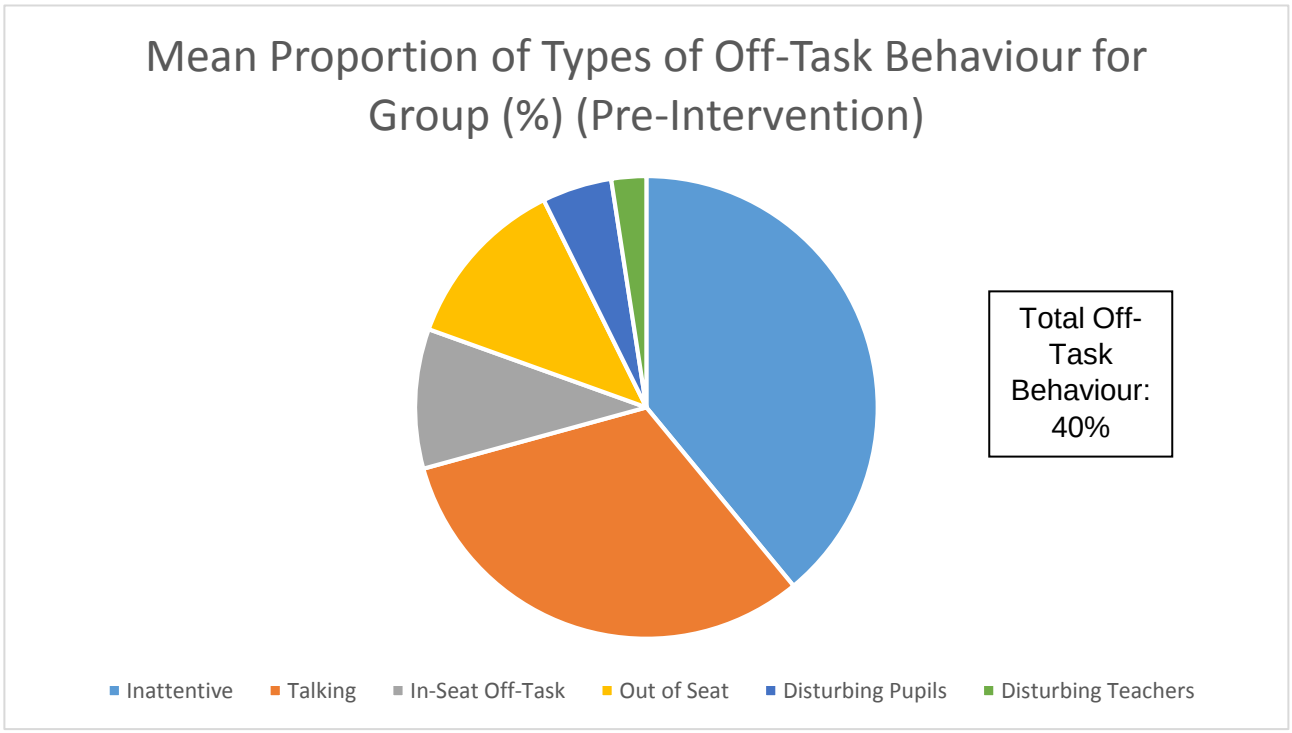


Figure 13 - Mean Proportion of Types of Off-Task Behaviour for Group (%) (Pre-Intervention)

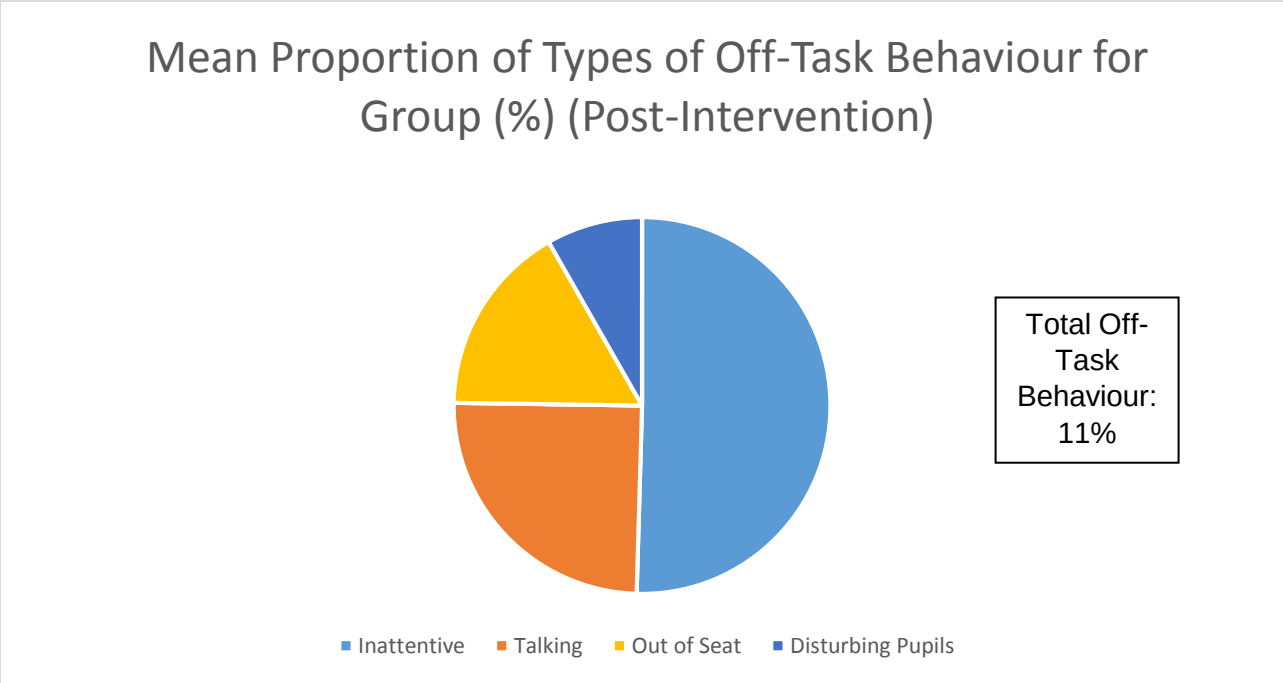


Figure 14 - Mean Proportion of Types of Off-Task Behaviour for Group (%) (Post-Intervention)

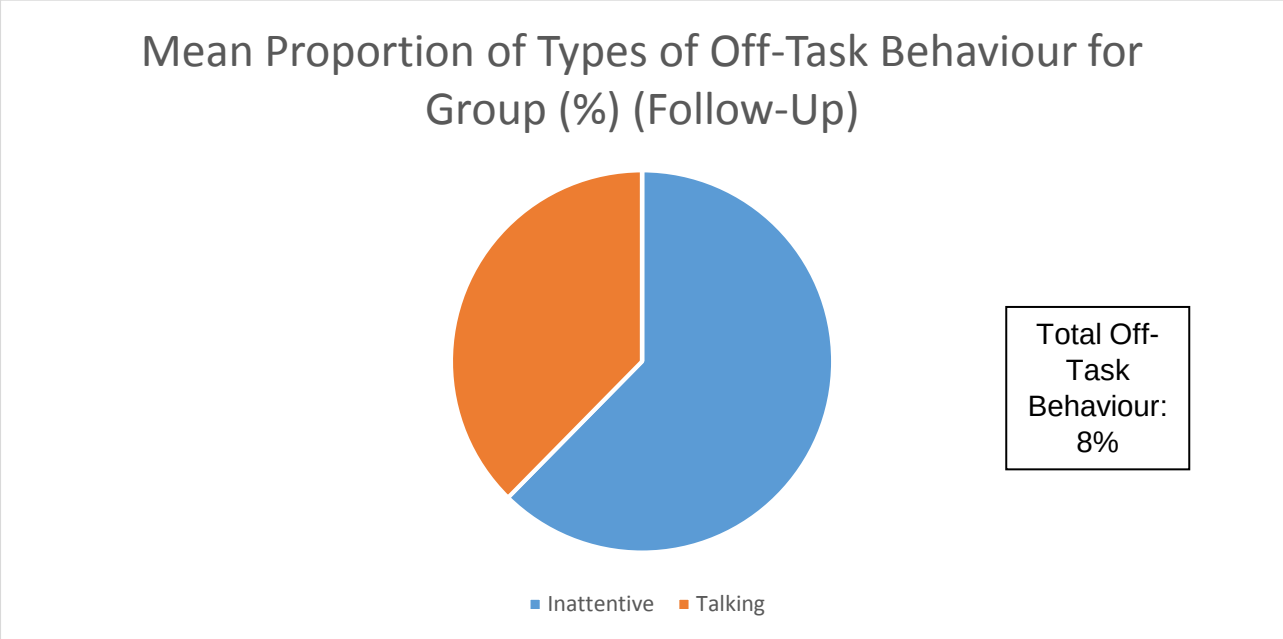


Figure 15 - Mean Proportion of Types of Off-Task Behaviour for Group (%) (Follow-Up)

4.1.7 Group Social Behaviour Questionnaire Data

The SBQ was completed by the teacher about each child at pre-intervention, post-intervention and follow-up phases of the study. The SBQ measures four behaviour types: aggression/disruption, anxiety, inattention and positive, prosocial behaviours. Scores are presented as means with the lowest possible score being zero and the highest being two; for aggression/disruption, anxiety and inattention a *lower* score is desirable and for prosocial behaviours a *higher* score is desirable. Mrs Goodman was not able to view her previous responses when completing the post-intervention and follow-up questionnaires.

Positive trends at post-intervention and follow-up stages were noted from the SBQ. The WOWW group's mean scores of aggression/disruption, anxiety and inattention decreased considerably from pre-intervention levels, while scores of positive, prosocial behaviours increased. The largest changes in scores were the reductions of anxiety and inattention (which were originally the highest scores for the group) as both fell by over half from pre-intervention to follow-up. These data are shown in Figure 16.

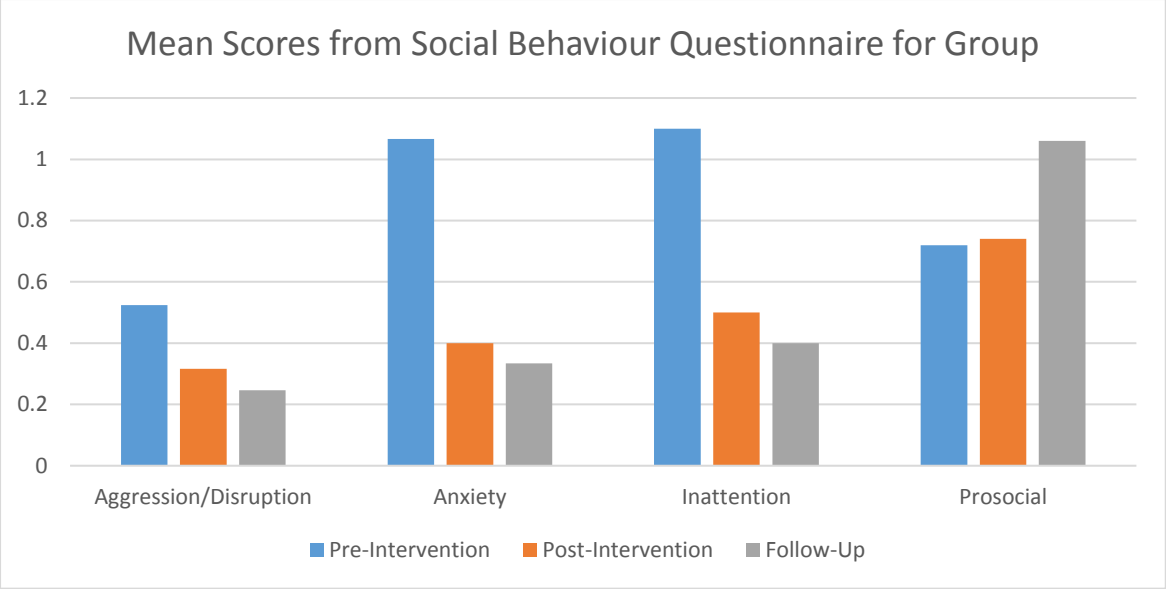


Figure 16 - Mean Scores from Social Behaviour Questionnaire for the Group

To inspect the questionnaire data more closely, each of the four behaviour types measured in the SBQ will be discussed in turn with considerations given to how the children scored differently.

4.1.7.1 Aggression/Disruption

Examples of statements on the SBQ that relate to aggression/disruption include: *'Restless. Runs about or jumps up and down. Doesn't keep still'; 'Fights with other children'* and *'Is disobedient'*.

Luke had the highest scores for aggression/disruption in each phase of the study, indicating that the teacher perceived this as a concern for Luke. Mean scores decreased for Luke from pre-intervention to post-intervention and further at follow-up. However, his ratings remained higher than others in the group. Bruce's scores were zero throughout, suggesting that this was not a perceived issue for him. Positive trends were noted for Tania, Tayshaun and Edward. By follow-up, Tania's scores of aggression/disruption were zero, indicating an absence of teacher concern in this area

by the end of the study. Edward's score also reached zero levels, at post-intervention phase, however this was not maintained at follow-up. For Tayshaun, there was a steady decrease in aggression/disruption, with the follow-up score being less than half of the pre-intervention score. In summary, the data would indicate that the teacher perceived less aggression/disruption in the group after than WOWW intervention than before it. The data are presented in Figure 17.

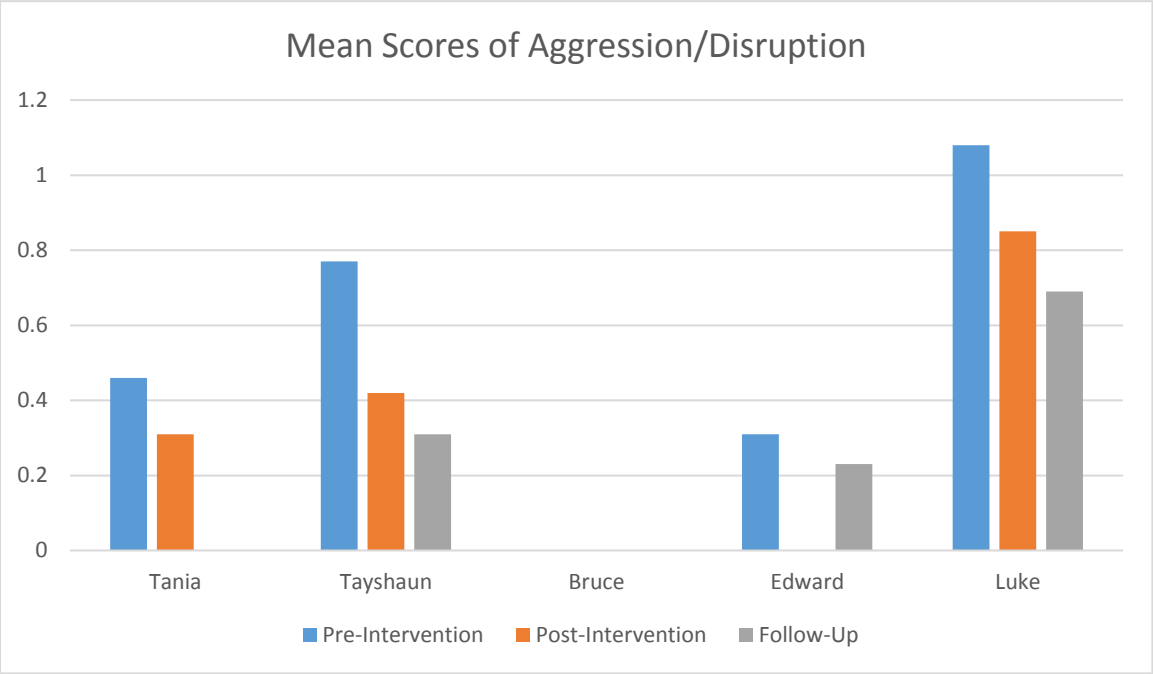


Figure 17 - Mean Scores of Aggression/Disruption from Social Behaviour Questionnaire

4.1.7.2 Anxiety

Examples of anxiety behaviour statements on the SBQ include: *'Is worried. Worries about many things'; 'Appears miserable. Unhappy, tearful or distressed'* and *'Tends to be tearful or afraid of new things or new situations'.*

At pre-intervention, scores for anxiety were higher than scores for aggression/disruption for all children except Luke. This shows that the teacher perceived anxiety as a greater concern for the group overall. Tayshaun was rated with the highest score of anxiety at pre-intervention. There were substantial reductions in anxiety scores at post-intervention, with Tania, Tayshaun, Bruce and Edward's scores all decreasing by over half of the pre-intervention score. Luke's initial anxiety score was lower than the others, however positive trends were still indicated as his score reduced to zero levels at post-intervention and follow-up phases. Tania and Tayshaun's anxiety scores further reduced from post-intervention to follow-up. Overall, anxiety levels were rated as lower after the WOWW intervention than before, for all children. The mean anxiety scores are shown in Figure 18.

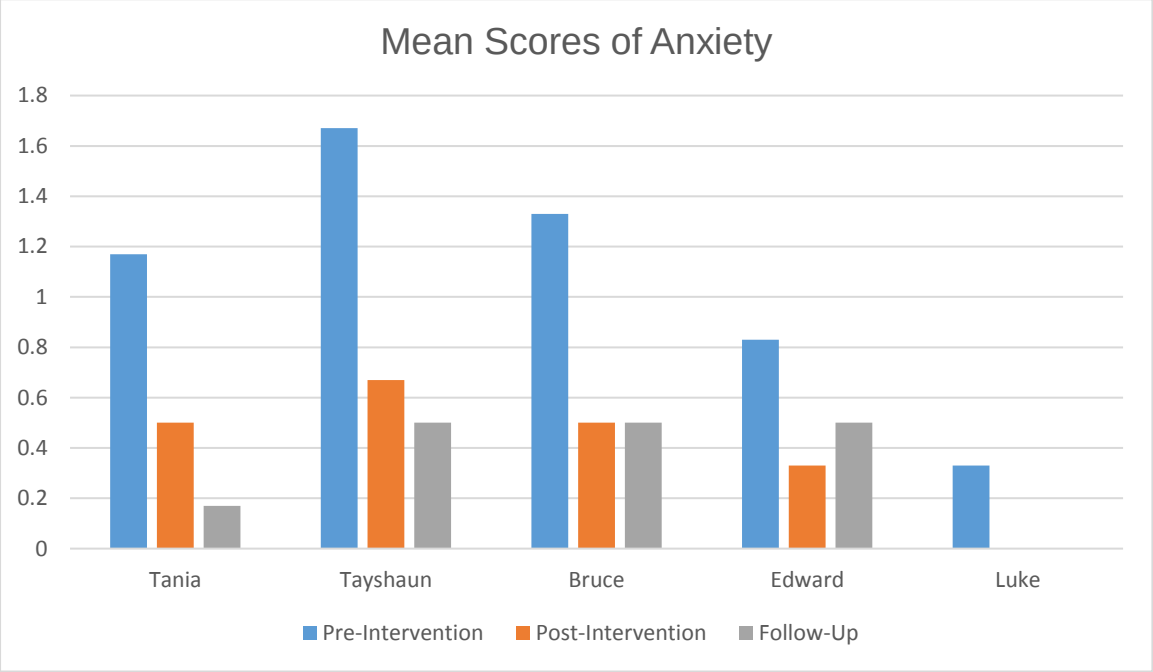


Figure 18 - Mean Scores of Anxiety from Social Behaviour Questionnaire

4.1.7.3 Inattention

Examples of inattention behaviour statements on the SBQ include: *'Has poor concentration or short attention span'; 'inattentive'* and *'stares into space'.*

Inattention was the behaviour which received the highest scores at pre-intervention for Tania, Tayshaun and Edward – suggesting that this was the greatest area of concern for these children, as perceived by their teacher. At post-intervention, the inattention scores for these children considerably decreased, by half or over half of their pre-intervention scores. For Tania, this reduction continued at follow-up where her score was zero. For Edward, his post-intervention score was maintained at follow-up and for Tayshaun, there was a slight increase. Inattention was less of a perceived issue for Bruce and Luke in all phases of the study, however, there was a perceived increase for Bruce at post-intervention and for Luke at follow-up. These data are depicted in Figure 19.

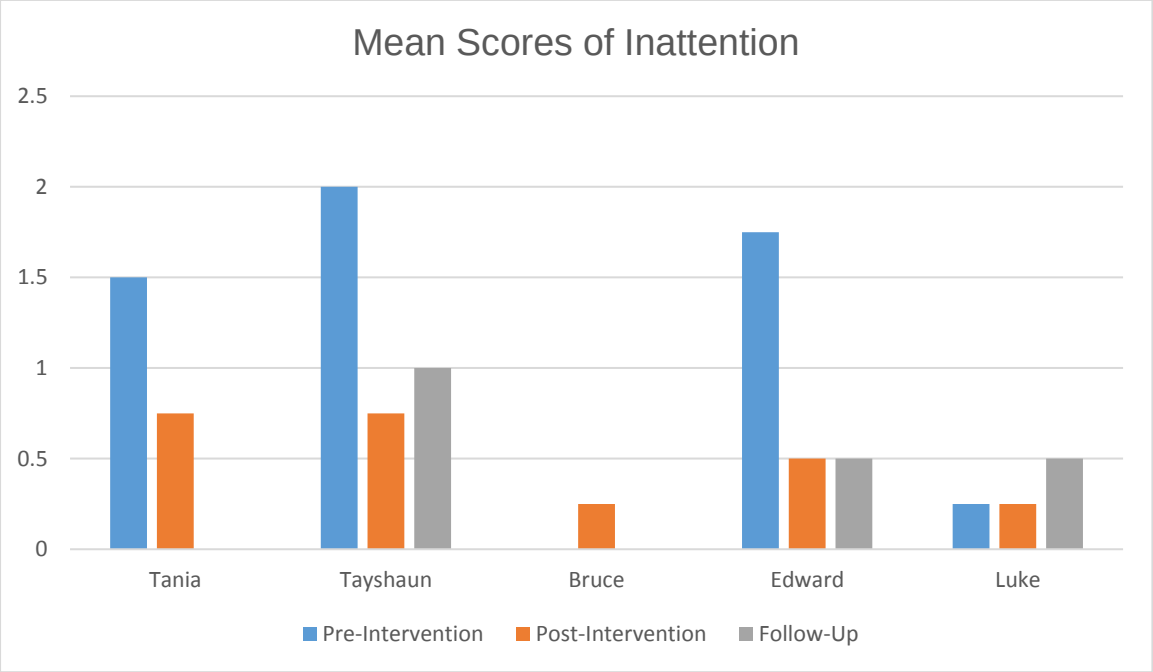


Figure 19 - Mean Scores of Inattention from Social Behaviour Questionnaire

4.1.7.4 Prosocial Behaviours

Examples of prosocial behaviour statements on the SBQ include: '*will invite bystanders to join a game*'; '*will try to help someone who has been hurt*' and '*comforts a child who is crying or upset*'.

Tania and Edward's prosocial behaviour scores were the highest at pre-intervention and Bruce, Luke and Tayshaun all scored similarly, at a lower level. Positive trends were indicated for Bruce and Tayshaun whose prosocial scores increased from pre-intervention to post-intervention and further at follow-up. Positive trends were also observed for Tania and Edward, whose prosocial behaviour scores increased from pre-intervention to follow-up, however, there was a decrease in scores at post-intervention. For Luke, negative trends were noted as his prosocial behaviours scores decreased from pre-intervention to post-intervention to follow-up. Mean scores for prosocial behaviours are presented in Figure 20.

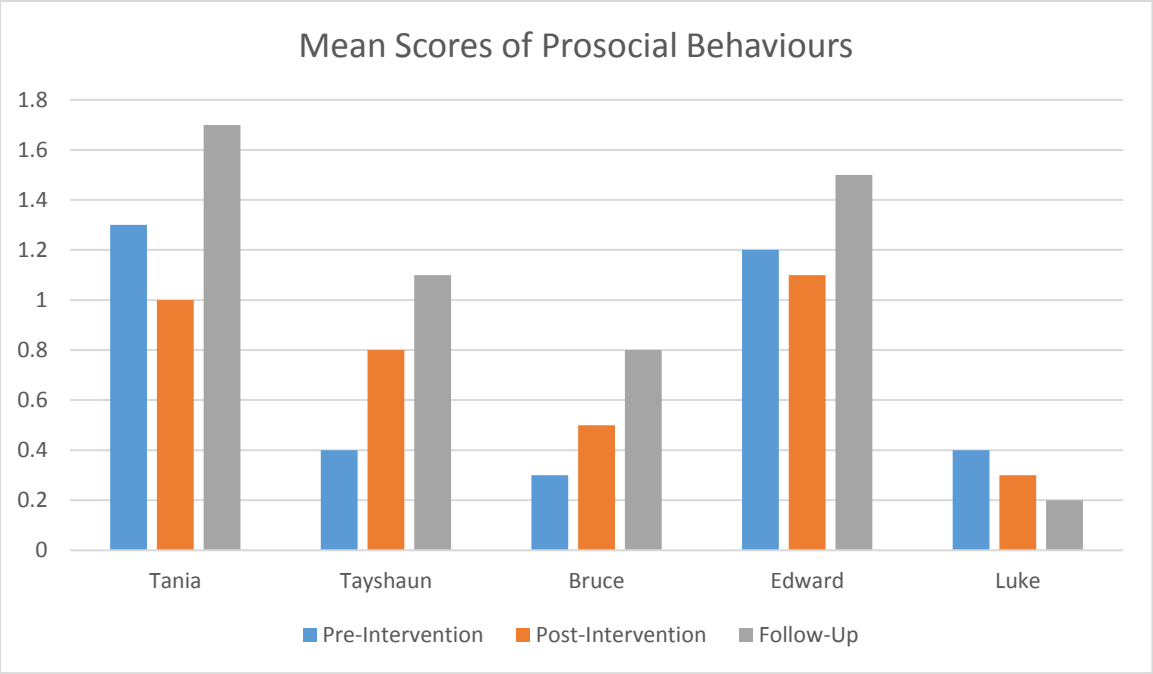


Figure 20 - Mean Scores of Prosocial Behaviours from Social Behaviour Questionnaire

4.1.8 Teacher-Rated Levels of Concern

Mrs Goodman was asked to rate her levels of concern for each child on a scale from 1-10 (1 being least concerned, 10 being most concerned) during the pre-intervention, post-intervention and follow-up interviews. For all children, the levels of concern reduced after the implementation of the adapted WOWW intervention, and either maintained or further reduced at follow-up, as indicated in Table 16.

Table 16 - Teacher Concern

Intervention Phase	Group Mean of Teacher Concern (/10)
Pre-intervention	8.4
Post-intervention	2.6
Follow-up	1.8

The largest reduction in concern was for Tania, who was initially rated as maximum level of concern (10/10) and reduced to minimum level of concern (1/10). The smallest reduction in concern was for Luke, who was initially rated 8/10 and reduced to 3/10 by follow-up. The data are presented in Figure 21.

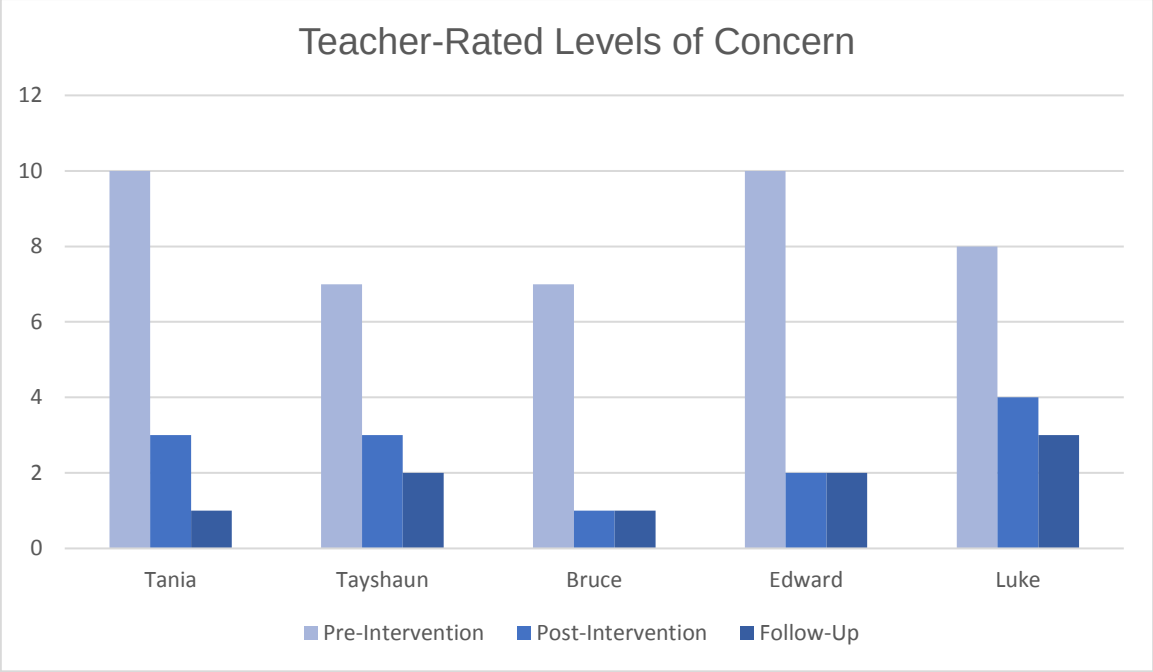


Figure 21 - Teacher-Rated Levels of Concern

4.1.9 Teacher-Rated Group Goal Achievement

In keeping with the WOWW intervention, Mrs Goodman was asked to establish three goals for the group to work on. These were: to be motivated, to be engaged and to ask for help appropriately. Mrs Goodman was asked to rate the group on each goal, using a 1-10 scale (1 being goal completely unachieved, 10 being goal completely achieved) in the different phases of the research. For each goal, the ratings of goal achievement increased considerably between pre-intervention and post-intervention and then either maintained or increased again at follow-up. For the goal of asking for help appropriately, Mrs Goodman rated it as completely achieved (10/10). These data are illustrated in Figure 22.

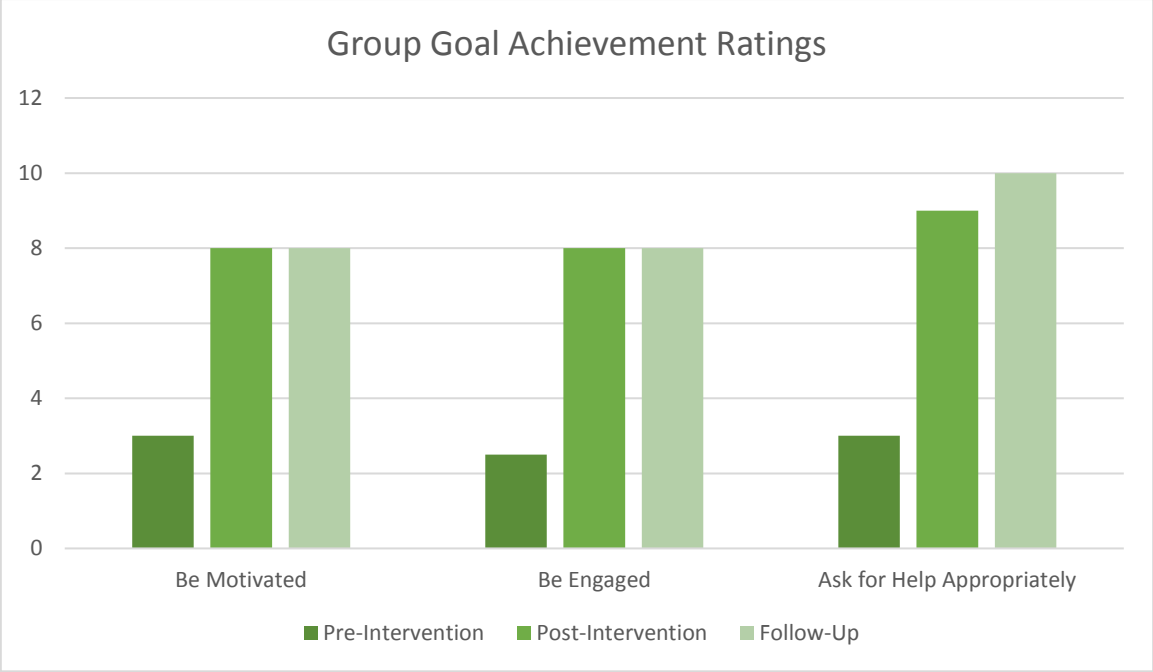


Figure 22 - Teacher-Rated Group Goal Completion

In the interviews, Mrs Goodman talked around these goals and the group's achievement of them. At pre-intervention, Mrs Goodman said:

"…when they're doing their work independently and when I'm talking to everybody, <u>those</u> are the children that are probably not listening or are doing something off-task or pretending to listen"
"…most of those children don't ask for help and that's where I think most of those behaviours come out because they don't know what they're doing"

Mrs Goodman was asked how things would be different if those three goals were met, she said:

"I think in terms of them, the outcome of their work individually. Plus, because the rest of the class can be on-task so if we've got these children also on-task then it just means they can all be on-task and all working together for the same goa."

In the post-intervention interview, Mrs Goodman said:

"…before I rated it [engagement] at 2.5 but now I've rated it as 8 because actually they are very engaged, they're on-task, they're doing their work and if they are confused they will ask for help appropriately"
"…they all seem to be motivated at the moment…they're doing really well on all three [goals]"

4.2 Findings for Research Question 2a: How is participation in the adapted WOWW intervention perceived by the group of children?

Children's perspectives were gathered through an individual ranking activity, a focus group and individual interviews.

4.2.1 Children's Rankings of Intervention Components

The children were asked to rank five components of the WOWW intervention in terms of enjoyment and helpfulness. The five components were shown to the children on cards with visual images to support their understanding (Appendix 14). The children were asked to physically move the cards to indicate the most to least rankings. The raw data for each child's individual rankings can be found in Appendix 15. A summary is presented in the Figure 23.

The children ranked the small-group activities as the most enjoyable and helpful component of the intervention. They also rated the handwritten letters favourably in terms of enjoyment and helpfulness. Goal setting and scaling were ranked as moderately enjoyable and helpful. Interestingly, the classroom observations and public praise were rated as the least enjoyable, but moderately helpful. Three of the five children ranked the public praise as least enjoyable and one child as second least

enjoyable; these children commented that it made them feel shy, but that they recognised the comments as helpful in understanding what they need to do more of in the classroom.

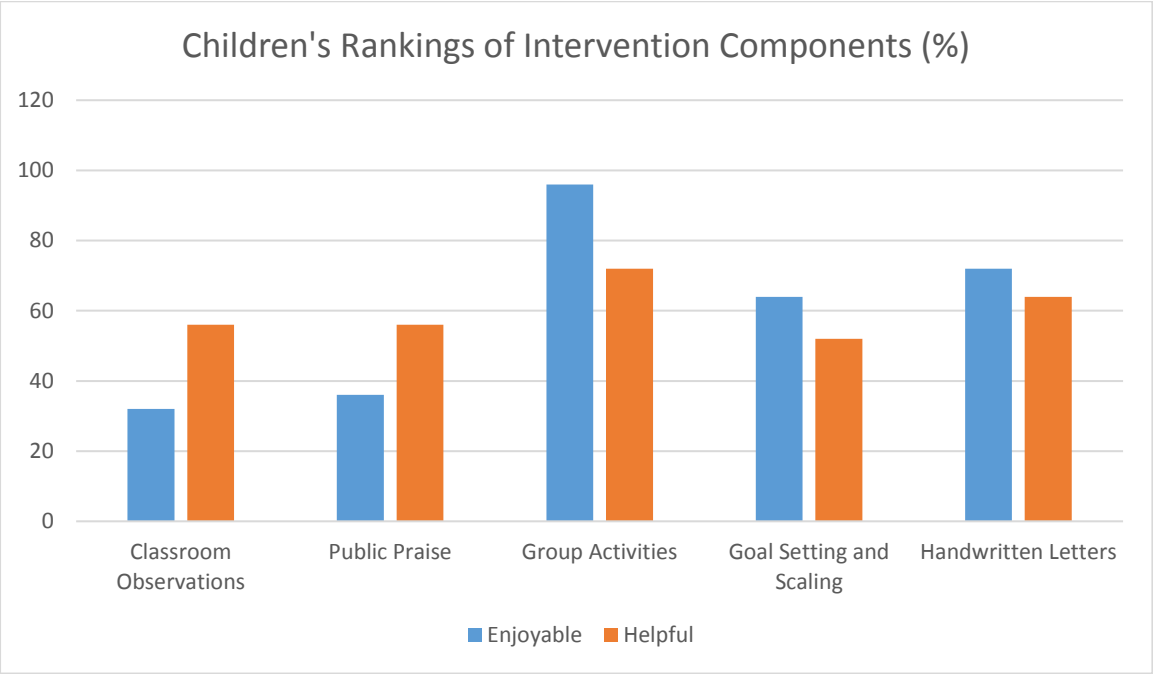


Figure 23 - Children's Ranking of Intervention Components (%)

4.2.2 Children's Focus Group and Individual Interviews

The children found it difficult to give long or extended answers verbally. Most questions were responded to with a single word or short phrase. A summary of the questions and children's responses is presented.

Question 1: How has the WOWW intervention helped you in school?

Four of the five children were able to answer this question and reported a positive change at school. Tania felt that *"everything"* had changed and commented especially on Physical Education (PE) and writing. In the focus group, Bruce said the WOWW intervention had helped him *"because now I know what to do"* and Luke commented that: *"all of them things you've done have helped me to ignore distractions".*

Question 2: What would Mrs Goodman say about your behaviour in lessons now?

All five children were able to respond to this question and commented that their teacher would report on their behaviour positively. Tania thought that Mrs Goodman would say: *"I've been listening to her"* and similarly, Bruce said: *"I think she would say I always listen to the teacher".* Tayshaun reported that his teacher would move him up on the rising stars board (school-based reward system) for his writing. Luke said: *"That I don't talk that much now I just concentrate with my work".*

Question 3: What did you like about our WOWW group?

All children were able to give a response to this question; however, most answers were general comments about their enjoyment of the intervention, rather than specific elements within it. Tania said: *"it was awesome"*, Edward said: *"it was fun"* and Tayshaun said: *"I like the WOWW group"*. Bruce and Luke reported to like *"everything"* about the group.

Question 4: What things did you not like about our WOWW group?

In both the focus group and the individual interviews the children did not report any dislikes in relation to the intervention.

Question 5: Are you any different now in lessons, compared to when I first met you?

All children responded with comments about positive changes in themselves during lessons. Tania said she was different because she was concentrating more and she said: *"I got an award yesterday for concentrating as best as I could".* Tayshaun felt different because he could: *"write people's names and write things properly".* Bruce said: *"I used to talk and now I don't".* Edward felt that he was now *"working hard"* and Luke said: *"I'm not scared anymore"*.

Question 6: Have you noticed anything different about Mrs Goodman in lessons?

For this question, the children either responded that they did not know, or that they had not noticed any change in their teacher's behaviour.

Children's enjoyment

Finally, in the focus group the children were asked to rate their enjoyment of the intervention out of 10 by holding up fingers on their hands. Three of the five children rated WOWW as 10 out of 10, one rated it as 20 out of 10 (by holding up all of his fingers and toes!) and one rated 7 out of 10.

4.3 Findings for Research Question 2b and 2c: How is participation in the adapted WOWW intervention perceived by the parents and teacher?

Figure 24 shows a thematic map of the final themes and sub-themes that were generated from the thematic analysis of the interviews with the four parents and one class teacher. For a list of the initial codes and the frequency of their occurrence in the data, see Appendix 16.

4.3.1 Theme One: Impact on Children

4.3.1.1 Academic Work

The teacher and two of the parents spoke about the intervention's positive impact on the children's school-related work. WOWW seems to have helped the children to complete more work and feel more enthusiastic about it.

"I think it's had a huge impact I mean if you just look at their books, the amount of work that they are producing compared to before, not even producing but completing is amazing" (Teacher)
"For example, we were talking about one child before…for some reason that child was very negative, very low in self-esteem so he would just sit there in a literacy lesson but now he completes his work…because that behaviour has subsided and he feels more happy and more positive he's completing more which is giving me more evidence to show what he can do and the progress he can make" (Teacher)
"She is more willing to read to me now, before when she came home from school she'd be like NO but now she comes home, gets her book out and reads to me every day when I ask her to" (Tania's parent)
"I think it has helped because now at least he knows – before, school was like where we're going to meet friends. Now I think he's more focused in a way…I think when he is in class he is concentrating" (Tayshaun's parent)

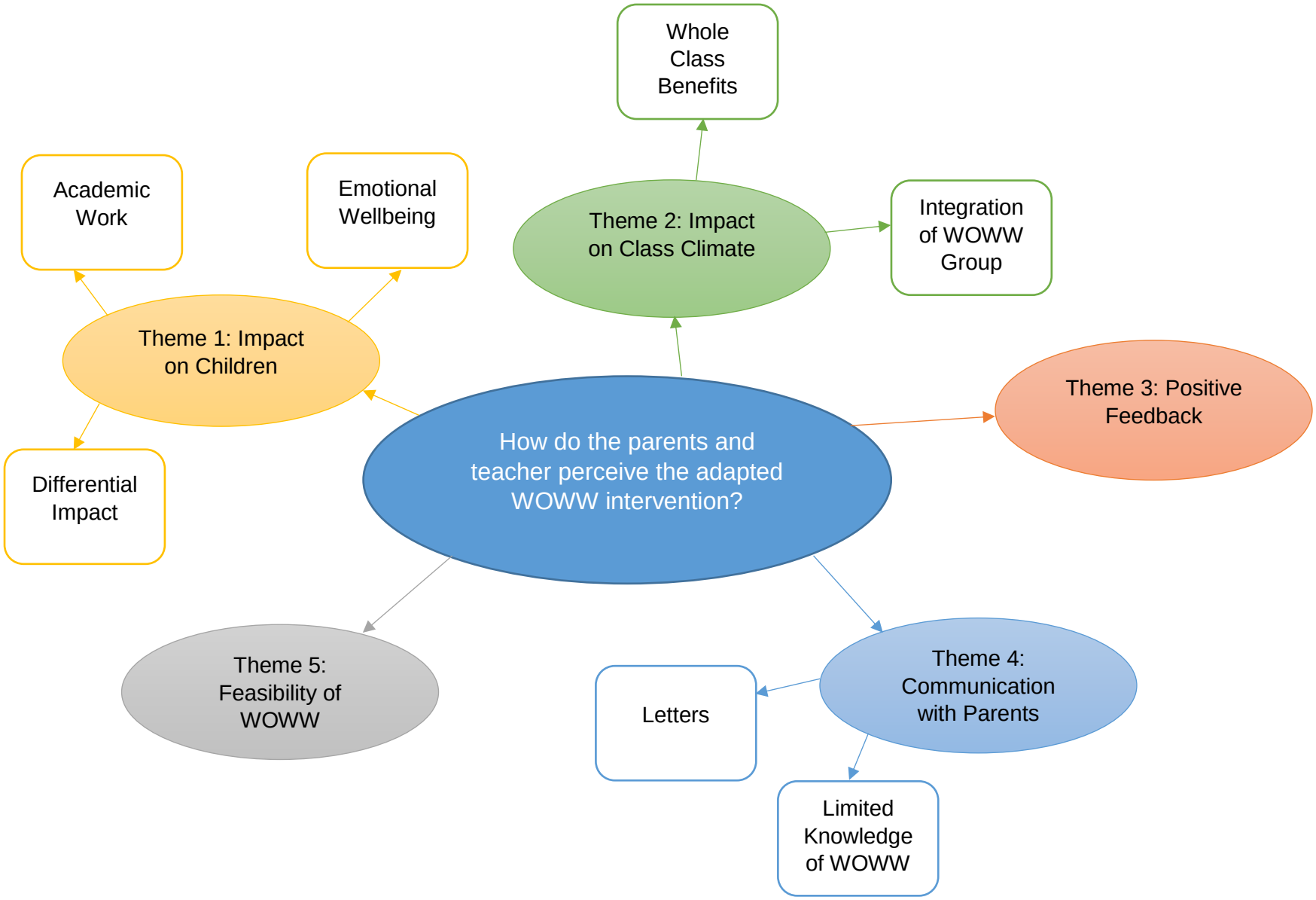


Figure 24 - Thematic Map of Parent and Teacher Perceptions of WOWW

4.3.1.2 Emotional Wellbeing

Two of the parents spoke about their children being happier and having a more positive attitude towards school following the WOWW intervention. Their children were Bruce and Tania – two of the children reported to be displaying internalising behaviours before the WOWW intervention began.

"…her attitude towards school has changed since you've been working with her…she's just a lot happier to go to school. Like before she would kick off in the morning wouldn't want to get dressed, any excuse not to go to school but she's a lot better now, happily go to school in the morning…I think she's a lot happier" (Tania's parent)
"Bruce is very different at the minute he's a lot more confident than he was… it's just his general happiness and about school he never worries about school anymore whereas before he would literally lose sleep about coming to school… But he's just been a lot happier lately, I don't know why, but he just has he's been a lot happier" (Bruce's parent)

4.3.1.3 Differential Impacts on Children

Mrs Goodman spoke about WOWW having more impact on Bruce, Edward and Tania than Tayshaun or Luke.

"I feel like they've all improved so much but I feel like a few of them have improved immensely like Bruce has just come out of his shell so much, Edward has made tons of progress I mean I don't even mention his name anymore because he is always on task, he's always doing the right thing and Tania as well she's just so different like before she'd be like "I need to go to the toilet" "I need to do this I need to do this" anything to distract her from her learning, talk to somebody behind her but now she's always so focused. I'd say the only two are Luke, but I think that's himself and

Tayshaun but with Tayshaun there's that learning side rather than the behaviour side which he might find a little bit difficult"

4.3.2 Theme Two: Impact on Class Climate

4.3.2.1 Whole Class Benefits

Despite this being a small-group adaptation to the WOWW intervention, Mrs Goodman spoke about a positive impact on all members of the class.

"I think it was just as effective because even though you were only there looking at those children, the whole class kind of got the benefits of it because the other children knew what you were looking for so I think they were also trying to do those behaviours and show those behaviours. And when I was doing it I was talking to all of them and when I was doing my positive praise I wasn't just focusing on the five children I was focusing on everybody so I would make sure it wasn't just those children so I think it still has an impact on the rest of the class definitely"
"I think we chose the right children and it has made a difference in the whole class as well, I don't know if that just happened as a side thing but it's made me think about how I reward the other children"

4.3.2.2 Integration of the WOWW group into the Class

Mrs Goodman also commented on the class integrating more following the WOWW intervention. She felt it had helped her to think more about the WOWW children and *"making them feel that they're part of a class and we're not always targeting them".* Her final remarks on the intervention during the follow-up interviews were:

"…it's just made it feel a bit more like a class whereas before some children were really loud, some children were not focussed whereas I feel like

they're all kind of getting together and doing the same thing they're all focussed… they're all working together for the same kind of goals."

Interestingly, in the pre-intervention interview some five months before this comment, Mrs Goodman's aim for the group of children was that they would be *"all working together for the same goal"* (Section 4.1.9).

4.3.3 Theme Three: Positive Feedback

Mrs Goodman talked about the positive feelings associated with receiving positive feedback, both for herself and the WOWW group children. She felt the feedback helped her and the children to reflect more.

"…at the end of the lesson you always used to give the feedback verbally in front of the whole class and whenever you used to say that you could just see the smiles on their faces, and even when you used to give it to me I used to have a smile on my face and it's so small but it also made me realise that actually just somebody giving you positive praise makes you feel so much happier and you get like a warm feeling inside"
"You could see from the faces of those children that they really enjoyed getting that positive feedback and then it made them think about how they can get it that little bit more and then when they were getting it more they were like "actually this is quite nice" about someone being positive"

Tania's mother also commented on feeling positively towards the compliments Tania was receiving in school.

"it's just nice for her to come home and say "I did well at this today" rather than to come home and say "oh I got moaned at by my teacher today"" (Tania's parent)

Mrs Goodman also reported that WOWW has made her reflect on her use of feedback with the children.

I think it's made me think about my positive praise and how I'm delivering it and how I'm getting the children to see that positive praise and making them feel special and important and happy about themselves"

4.3.4 Theme Four: Communication with Parents

4.3.4.1 Letters

Each of the four parents spoke about the handwritten letters that the children had received during the WOWW intervention. Parents expressed fondness for the letters and for Bruce and Edward's parents, the letters enabled them to gain information about the WOWW intervention.

"…the little letters that you've written she brings home and shows me "LOOK I got this today"" (Tania's parent)
"That's how I know what's going on (laughs) because Bruce wouldn't say but they're brilliant I really like those letters… They're really nice upbeat letters" (Bruce's parent)
"…you sent those little letters home…he brought them home so I was talking to him about them and then it's not until, if you hadn't had sent those letters home, which were lovely to read, if you hadn't have sent those he probably wouldn't have said anything… It was like a little prompt if you like for me to say something to him and then he's like "oh" and it all spills out" (Edward's parent)
"…I did really like the little letters because then I got a bit of an insight to what he was doing" (Edward's parent)
"…he's brought letters home that you have written to him" (Tayshaun's parent)

4.3.4.2 Parents' Limited Knowledge and Understanding of WOWW

During the interviews, Bruce and Edward's parents expressed their limited knowledge of what WOWW was and how it impacted their children.

"I don't really know too much about it [WOWW]" (Bruce's parent)
"Well I don't really know a massive amount of it [WOWW]" (Edward's parent)
"I don't know, I mean like I say he's much happier but I don't know what it's down to because Bruce's conversation skills are not amazing but I just know that he's a lot happier lately and I'm really hoping it stays that way" (Bruce's parent)

For Tayshaun's parents, there was a sense that they did not fully understand my role or the intervention, this may be due to a language barrier as English was the family's second language. As an example, when asked if there had been any changes to Tayshaun's behaviour at home, the parents spoke about school subjects and homework.

"You know he's, he's improved I've observed that he's quite good with his maths but he's still lacking in his English"
"…the other day we went to class and they were talking about the new maths that they introduced however he did not bring his homework. I don't know why whether the teacher was not there or what because they said they'd be giving us homework"

4.3.5 Theme Five: Feasibility of WOWW

Mrs Goodman felt positively towards the WOWW intervention and expressed no concerns about its implementation. Mrs Goodman would reportedly recommend WOWW to other teacher colleagues.

"I think it's worked quite well so I wouldn't really say anything different. I mean working in schools it's hard to with timing and things so you've done really well and it would be easy to say – like we tried to do it every Monday

but it was so hard…I think it's worked really well there's nothing I would change"
"I would say definitely go for it. I mean there's nothing – I wouldn't say that there is anything negative that's come from the WOWW intervention everything has been so positive and it's made such a huge impact on those children that I wouldn't see why anybody would not want the WOWW research to be done"

When asked if there were any elements of WOWW that Mrs Goodman could feasibly carry forward into her teacher practice, she reported that the positive feedback and small goals could be embedded in her practice:

"Yeah definitely I think for me the positive praise and making sure that I'm always giving praise and maybe even your small targets and maybe having a class target and making sure we all work on that target. That was quite nice because they knew what their target was so they always used to think about it, it was always in the back of their head when they were doing learning like "I need to tune out distractions" so they would be thinking about that…yeah so maybe like having a whole class target and working on that as a class"

Chapter 5: Discussion

In this chapter, the findings of the study will first be discussed in relation to the two research questions and existing literature. The discussion will then broaden to consider the mechanisms that may underlie the findings. This chapter will conclude with a discussion of the research's limitations and implications before offering a final summary of the study.

5.1 How is the classroom behaviour of a group of Year 2 children impacted by the adapted WOWW intervention?

In answer to this research question, the findings suggest that the classroom behaviour of the group of children was positively impacted by the adapted WOWW intervention. Each of the study's measures relating to this question (observations, interviews, questionnaires and rating scales) indicated positive trends for the group following the WOWW intervention.

Observation data showed that the children's on-task behaviours increased considerably from a group average of 60% before the WOWW intervention, to 89% soon after it and 92% six weeks later. Each type of off-task behaviour decreased following the WOWW intervention. By the follow-up phase, the out of seat, in-seat off-task, disturbing pupils and disturbing teacher behaviours had reduced to zero levels, suggesting that they were absent from the observed lessons. The two most frequent off-task behaviour types were inappropriate talking and inattention, both of which reduced by over two thirds from pre-intervention to follow-up observations.

Data from the researcher-led observations were supported by data from the class teacher. In the pre-intervention, post-intervention and follow-up interviews, Mrs Goodman was asked to talk for one minute about the classroom behaviour of each

child in the WOWW group. Her narratives about Tania, Tayshaun, Bruce and Edward changed markedly following the WOWW intervention (Sections 4.1.1-4.1.4). Mrs Goodman noted positive changes in their behaviours, like them being:

- More focussed (Tania, Tayshaun and Edward);
- More on task (Tania, Tayshaun, Edward and Luke);
- Asking for help (Tania and Edward);
- Ignoring distractions (Tania); and
- More confident (Bruce).

Mrs Goodman's previous concerns about these four children, such as them not listening, distracting other children, coming into school upset, not completing set work and being in their shells, were not discussed as concerns in the interviews that took place after the WOWW intervention.

For Luke, the findings were mixed. Mrs Goodman noted positive improvements to his on-task behaviour after the WOWW intervention, which corroborates with the observation data. However, considering the concerns discussed in the first interview, relating to Luke's relationships with his peers, Mrs Goodman noted no improvements. This is further reflected in the teacher-completed SBQ where Luke's positive, pro-social behaviour scores *decreased* over time.

General trends from the SBQ were, however, positive; the group's average scores of aggression/disruption, anxiety and inattention reduced from pre-intervention to post-intervention and further at follow-up. Concurrently, average positive, prosocial behaviour ratings improved after WOWW and increased again at follow-up. This is in agreement with the teacher's concerns about the children, which fell from a mean rating of 8.4 out of 10 before WOWW to 2.6 and 1.8 out of 10 in the post-intervention and follow-up stages respectively. Finally, the goals of engagement, motivation and

asking for help appropriately (set by Mrs Goodman) were rated as broadly achieved by the end of the intervention, with scores reaching 8 or 10 out of 10 (10 being goal fully achieved).

Taken together, the findings indicate that after the WOWW intervention the group of children were spending more lesson time on-task and less time talking, being inattentive and engaging in other off-task behaviours. In addition, by the end of the intervention the teacher felt less concerned about the children, noted reductions in their inattention, disruption/aggression and anxiety and described their behaviours in more positive ways. Figure 25 outlines the key findings for the group and individual children after the WOWW intervention.

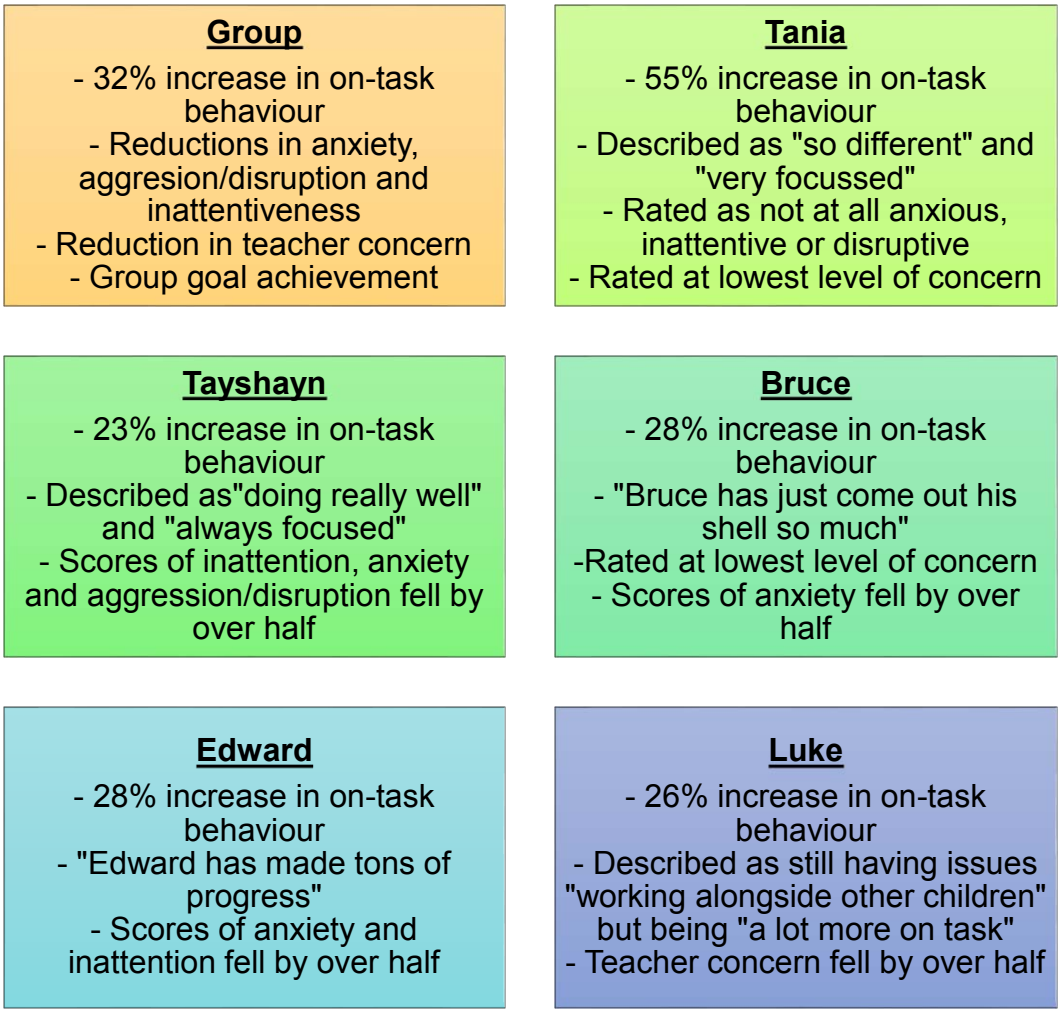


Figure 25 - Summary of Group and Individual Findings

5.1.1 How do the current findings relate to existing literature?

The current study's findings on children's behaviour corroborates with the existing research on WOWW (Section 2.5.3). The increased on-task behaviour observed in the present research supports Berzin *et al.*'s (2012) cohort control study where report card data indicated increased on-task behaviour for the WOWW group. Mrs Goodman's description of the children as more focussed, engaged and motivated after the WOWW intervention correlates with the teacher-reported improvements in classroom

behaviour and motivation of students in other WOWW studies (Kelly and Bluestone-Miller, 2009; Fernie and Cubeddu, 2016).

Listening skills were noted to improve in three WOWW studies (Brown *et al*., 2012; Lloyd *et al*., 2012; Fernie and Cubeddu, 2016). Similarly, in the present study, rates of inattention decreased considerably on both the researcher-completed observations and teacher-completed questionnaires. In addition, the teacher commented on the children's improved focus during the post-intervention interviews. Accordingly, the current study extends the previous findings that WOWW is correlated with improvements in on-task behaviour and teacher's perception of improved classroom behaviours, including listening and motivation.

The current study's findings also connect with the wider classroom intervention research discussed in Section 2.4. Studies have indicated that the GBG, CWFIT and CICO interventions have been correlated with increased on-task behaviour in observation data. Table 17 provides an example for each intervention in terms of the reported increase in on-task behaviour.

Table 17 - Examples of On-Task Behaviour Changes in Other Intervention Studies

Phase of Study	**GBG: Wright and McCurdy (2011)**	**CWFIT: Caldarella *et al.* (2015)**	**CICO: Miller *et al.* (2015)**
Baseline	74.19%	59.79%	49.52% - 67.14%
Intervention	94.70%	74.58%	82.77% - 90.71%

The current study's findings are similar to those presented in Table 17, as mentioned in the previous section, the group's on-task behaviour increased from 60% at pre-invention (baseline) to 89% after the WOWW intervention and 92% at follow-up.

Consequently, this study lends support to WOWW being correlated with increased on-task behaviour in observation data, like other evidence-based classroom behaviour interventions. This study is the first piece of research on WOWW to make such a claim, and thus, it is made tentatively and would require further studies to adopt classroom observations to measure the impact of WOWW.

McIntosh *et al*. (2014) noted that there is little research examining the effects of interventions on internalising behaviours. The findings of the current study indicate a reduction in students' anxiety levels after the WOWW intervention, as reported by their teacher on the SBQ. Mrs Goodman also made comments about improvements in internalising behaviour difficulties. For example, in relation to Tania, Mrs Goodman said "…*before she used to come in slightly upset…but recently she's very happy she comes in happy she's focussed…"*, also, she talked about Bruce coming out of his shell and participating in drama activities, where previously he would have withdrawn from such events (Section 4.1.3). In addition, one of the sub-themes generated from the parent interviews related to the perception that WOWW increased emotional wellbeing; Tania and Bruce's parents reported them as noticeably happier after participating in WOWW.

Although tentative, the findings of the current study can begin to propose an exploration of WOWW's impact on children with internalising behaviour difficulties. Intuitively, it fits that if a child experiences difficulties like low self-esteem, negative self-thoughts and anxiety, adopting a strengths-based approach like WOWW (where the child is hearing positive messages about their behaviour) may be beneficial. However, future WOWW research would need to use specific instruments to measure internalising behaviours. For example, Hunter *et al.* (2014) and Dart *et al.* (2015) used the 'Student Internalizing Behavior Screener' in their studies of the impact of CICO on

internalising difficulties. A similar measure could be utilised in WOWW research with children identified with such difficulties.

5.2 How is participation in the adapted WOWW intervention perceived by a) the group of children, b) their parents and c) their class teacher?

In answer to research question two, participation in the adapted WOWW intervention was positively perceived by the children, their parents and their teacher. The children rated their enjoyment of WOWW as high and they liked the small group activities and handwritten letters most. Bruce and Tania's parents discussed their children as happier after the implementation of WOWW and all parents held positive views about the handwritten letters. There were, however, limitations to the parents' knowledge and understanding of WOWW (Section 5.4).

For Mrs Goodman, she expressed strong positive views of WOWW stating the significant impact it made on the children. She would reportedly recommend it to colleagues and carry forward elements of it in her practice. She perceived the benefits of WOWW as:

- Improvements in the children's academic work;
- Greater integration of the WOWW group into the class;
- Benefits for the other students in the class;
- Encouraging her to reflect on her positive praise; and
- General feasibility of the intervention.

5.2.1 Behaviour Change and Goal Setting

Within the theme of *impact on children,* a sub-theme was generated relating to Mrs Goodman's perception that WOWW had a greater impact on three of the five children.

Mrs Goodman felt that Bruce, Edward and Tania had improved *"immensely"*, stating that Bruce had "*come out of his shell"*, Edward was "*always on-task"* and Tania was *"always so focused"* following the WOWW intervention. Whereas for Luke and Tayshaun, Mrs Goodman felt the impact was smaller.

Mrs Goodman's views align with the some of the other data in the study. For example, the observation data suggests that Luke's and Tayshaun's increases in on-task behaviour were the smallest, as was Luke's reduction in talking inappropriately and Tayshaun's reduction in inattentiveness. The SBQ data indicated that Tayshaun scored with the highest levels of inattention in all phases of the study and similarly, Luke scored with the highest levels on aggression/disruption in all phases. Therefore, some of the data converges with Mrs Goodman's perception that the WOWW intervention had less impact on Luke and Tayshaun.

However, it is important to note that Mrs Goodman did describe Tayshaun as "…*doing really well. Always focused, always willing to participate"* and that she has seen *"a complete change in him"* following the WOWW intervention. Also, her ratings of his prosocial behaviours increased steadily from pre-intervention, to post-intervention to follow-up, unlike Luke's scores in this area, which steadily *decreased*. Taken together, the data suggests that WOWW may have had the most impact on Tania, Bruce and Edward and the least impact on Luke, with the impact on Tayshaun being variable and somewhere in between.

There could be a myriad of reasons for the variability in impact, one could be that WOWW suits a certain type of *problem* better than another, i.e. WOWW might be less impactful for children with difficulties in their peer relationships, like Luke. However, previous WOWW research has found that ratings of peer relationships such as getting

along with, respecting and accepting each other increased following participation in WOWW (Brown *et al.*, 2012; Lloyd *et al*., 2012; Fernie and Cubeddu, 2016). So, this seems like an unlikely explanation for the current study's findings.

A more plausible argument is that, unlike the other WOWW studies, the current study did not target peer relationships specifically. The other WOWW studies (with reported improvements in peer relationships) addressed relationships within the intervention goals, like to 'improve positive relationships among peers' (Brown *et al*., 2012, p.23). In the current study, the three teacher goals related to motivation, engagement and asking for help and the within-intervention weekly goals related to attending to the teacher while they were talking, giving ideas to the class, ignoring distractions, sitting still on the carpet and showing enthusiasm (Appendix 7). Consequently, none of the goals in the current study directly addressed peer relationships, which was the specific need for Luke. In the WOWW intervention, the weekly goals are reinforced through scaling activities, solution focussed questioning and, in the final phase, weekly goal-related positive feedback and daily teacher ratings of the goals. Thus, it is logical to assume that gains are more likely to be made in the behaviours that the intervention specifically addresses through goal setting, scaling and praise.

5.2.2 Class Climate

One of the themes generated from the teacher interviews related to WOWW's impact on class climate. Mrs Goodman discussed that the class felt more integrated, saying that the children were "…*all working together for the same kind of goals."* (Section 4.3.2.2). This supports previous research suggesting increased class collaboration as an outcome of WOWW (Brown *et al.,* 2012; Lloyd et al., 2012; Fernie and Cubeddu, 2016) (Section 2.5.3.2).

Mrs Goodman also noted that *"…before some children were really loud, some children were not focussed whereas I feel like they're all kind of getting together"*. This fits with the teacher's comments in Section 4.1.9 that originally, the group of children were noticeable as the ones who were not listening and were off-task. These comments also correlate with the observation data which suggested that prior to WOWW, the group of children were engaging in six different types of off-task behaviours like inattention and disturbing pupils, whereas this reduced to only two behaviours by the follow-up phase. Thus, the findings suggest that the children in the WOWW group were more similar to and integrated with their class after the intervention. Furthermore, despite this being a small-group version of the whole-class WOWW intervention, the current study validates previous findings that WOWW can enhance classroom collaboration and a sense of class cohesion.

5.2.3 WOWW and Teacher Practice

Previous WOWW studies have indicated positive impacts on teacher practice. Four studies used teacher-completed ratings of self-efficacy (Berzin *et al*., 2012), classroom management skills (Kelly and Bluestone-Miller, 2009) and teacher confidence (Lloyd *et al*., 2012; Fernie and Cubeddu, 2016) and all noted positive trends following WOWW. Lloyd *et al.* (2012) also used open questionnaires and noted that the teachers commented on using more positive language and focusing more on positives than negatives. The current study did not capture any rating scale or open questionnaire data about the teacher's practice. However, in accord with the teachers in Lloyd *et al.'s* (2012) study, Mrs Goodman commented that WOWW had made her reflect on her use of positive praise and ensuring that she always provides it to the children. She also felt that she could carry on using the small goals with the entire class. Therefore,

there may be positive outcomes for teacher practice in the current study, although this was not directly measured.

5.3 Potential Mechanisms and Conditions Underlying the Findings

As discussed in Section 3.1, the current study is underpinned by CR which is interested in the processes and conditions which may have causal powers in relation to the events observed in the empirical domain, which is all researchers have access to (Zachariadis *et al.,* 2013). Similarly, case study research aims to gain insight into causal processes (Yin, 2009). So, withstanding the subjectivity and limitations of the current research's findings, this section will outline one espoused causal mechanism and two espoused conditions for the findings of this WOWW study.

5.3.1 Positive Feedback as a Causal Mechanism

A mechanism considered to be at play in the current study is the power of positive feedback. In the literature review (Section 2.2.2), research was presented on the impact of behaviour specific praise (BSP) and its correlation with increased on-task behaviour (Swinson and Knight, 2007). In the current study, on-task behaviour increased considerably after the children participated in the WOWW intervention. There are several elements to WOWW, most notably goal setting, scaling and praise or 'complimenting'. Thus, it is not easy to detangle the causal roles of the different intervention components. However, Mrs Goodman shared positive experiences of the feedback in WOWW, both for the children: *"…it [praise] made them think about how they can get it that little bit more"* and herself: *"…it also made me realise that actually just somebody giving you positive praise makes you feel so much happier and you get like a warm feeling inside".*

The children in the current study ranked positive feedback through letters as the second most enjoyable and helpful component of WOWW and positive feedback through verbal, public praise as the third most helpful and fourth most enjoyable component. Positive feedback is considered to be a causal mechanism because it draws attention to strengths and encourages children to do more of the things that are working.

In the current study, considerable improvements were noted in the goal-related behaviours that were specifically praised. In the final phase of WOWW the children received weekly (verbal and written) praise from the researcher and teacher in relation their goals (e.g. give ideas in front of the class, show enthusiasm, sit attentively during carpet time and ignore distractions). Following this, the post-intervention and follow-up measures indicated improvements in behaviours associated with these goals e.g. engagement, motivation, attention and on-task behaviours. In addition, Mrs Goodman directly commented on goal-related behaviours improving, e.g. "*It's made them think about what they're doing in class – are they distracting others, are they listening and I think they've become more aware of it now".* However, the behaviours that were not addressed in the WOWW intervention and therefore not systematically praised and noticed, such as improving peer relationships, did not improve (Section 5.2.1).

5.3.2 Teacher and Coach Commitment as a Condition

One possible condition which has been identified in previous WOWW research and applies to the current study, is that of the participating class teachers' enthusiasm and commitment to the WOWW intervention. Brown *et al*. (2012) stated that commitment of the classroom staff was a primary factor for the success of their project and they ascribed this to the solution focused principle of *no sign-up, no change*. In agreement,

Fernie and Cubeddu (2016) describe full cooperation from participating teachers as essential for the intervention to successfully bring changes to teacher practice. In the current study, Mrs Goodman was enthusiastic, motivated and committed about WOWW from the beginning of the study. She engaged in all facets of the study, including welcoming the positive feedback about herself in front of the class, joining the small-group activities outside of the classroom and facilitating the goal setting and scaling with the children. Mrs Goodman was also organised with the administrative elements of the intervention, such as arranging dates and times for sessions. Consistent with Brown *et al.* (2012) and Fernie and Cubeddu (2016) I feel that a condition of the findings in the present research is that teacher volunteered, committed and engaged in the WOWW process, without which, the positive impacts of WOWW may not have occurred.

In addition, the qualities of the coach are likely to be a condition of successful implementation and outcomes of WOWW. The WOWW coach acts as a model for the teacher and needs to showcase authentic, enthusiastic interactions with CYP. Similar to the teacher, the coach needs to demonstrate commitment, motivation and passion. The coach also needs to have a relative degree of confidence in order to address a class of CYP and share positive comments about each person.

5.3.3 Children's Enjoyment as a Condition

A second condition thought to be of importance to the findings of the current study is the enjoyment of participating students. Lloyd *et al*. (2012) and Fernie and Cubeddu (2016) reported that the children in their studies enjoyed participating in WOWW and commented that the WOWW feedback made them feel respected. In the current study, the five children rated WOWW highly for enjoyment and described it as *"fun"* and

"awesome". In the final celebration session after the study had ended, the children expressed sadness about the intervention ending and asked if it could carry on. If the children did not enjoy the WOWW intervention it is likely to produce different events than the positive outcomes observed in the current study, thus, enjoyment is a *condition* of the findings.

5.4 Limitations and Implications for Future Research

Pertinent limitations and their implications for future research are detailed in Table 18.

Table 18 - Limitations and Implications for Future Research

Limitation	**Implication for Future Research**
The observation data in the current study was collected by a single researcher using pen and paper methods. Thus, there may have behaviours that the researcher missed or coded incorrectly. Also, the children may have acted differently with the presence of the researcher in the room e.g. acting in socially desirable ways.	Future research could use multiple researchers to increase inter-rater reliability (Cohen *et al*., 2011) and/or could use technology to record classroom observations for more in-depth analysis. By video recording the classroom observations, the limitation of having an external researcher present in the room would be removed.
The current study did not collect any observation data relating to the teacher's use of feedback. A core component of WOWW is providing positive feedback. Therefore, with WOWW being a coaching intervention which aims to enhance both teacher and student practice, it would be interesting to see if WOWW has any impact on teacher's use of praise.	Future studies of WOWW could use a structured observation schedule to measure teacher feedback. The PBS (Jolly and McNamara, 1992) used in the current study can calculate different types of feedback e.g. positive, negative, academic, social, individual, group or class.
The current study did not collect any data specifically measuring internalising behaviour difficulties. Yet, there seemed to be improvements in anxiety levels and teacher and parent perceptions of	Future studies could contribute to the under-researched area of exploring interventions that support children with internalising behaviour difficulties, e.g. by using a measure such as the 'Student

emotional wellbeing for children in the current study with such difficulties.	Internalizing Behavior Screener' which is utilised in other intervention research.
Despite trying a range of methods including focus groups, individual interviews and visual card ranking activities, it was difficult to elicit extended responses from the children about their perceptions of WOWW. This may have been due to their age and conversation skills, but other factors may have impeded the children's freedom to share their views e.g. wanting to say the right thing or not understanding the question.	Future research should continue to include children's perceptions of the interventions they participate in. Researchers will need to work hard to identify the best way to enable participation to be genuine and not tokenistic (Hart, 1992). Ideas include using drawings, increased visual cues and concrete objects. It may also be helpful for someone other than the researcher to elicit their views, such as a familiar, preferred adult in school.
The parents in the current study had a limited understanding of the WOWW intervention or my role as the WOWW coach. I met each parent in person to talk through the project and gain consent, provided a researcher-made handbook and sent letters home throughout the intervention. Yet, further actions may strengthen parental understanding of WOWW.	Parents valued the letters, as did the children, so their use in future research may be warranted. If individual letters are not feasible (i.e. if there are too many children), noticing cards could be given instead, as used in Lloyd *et al.* (2012). To support parents' understanding of WOWW, future researchers could provide a poster summarising the intervention week-by-week, which is separate from the project information sheet and consent form. Researchers could also use telephone or email to liaise with parents.
The current study made a significant modification to the standard WOWW intervention by focusing on five children as opposed to a whole class. As the WOWW evidence base is so small, it may have been more helpful (for research purposes) to adhere to the standard process.	Future whole-class WOWW studies are needed to strengthen the evidence base of it as a successful classroom management intervention. The mixed method design in the current study was helpful in bridging a range of perspectives using different measures. Future studies could adopt mixed methods designs.
The perceptions of the intervention were gathered by the researcher, who was	Further WOWW studies could use multiple researchers with distinct roles

also the intervention deliverer. Thus, the researcher's presence may have encouraged the participants to speak more positively about the intervention.	e.g. to deliver WOWW, to collect observation data, to collect interview data etc.

5.5 Implications for Theory and Practice

The present study supports the tenets of SFBT, most notably that by complimenting clients and bringing attention to exceptions and what is already working well, there will be an increase in those very things. In the current study, the classroom behaviours that were praised and paid attention to, such as good listening, improved. Thus, this research can strengthen the theoretical claims of SFBT and its application to CYP and school.

The findings of this study indicate that WOWW was a successful intervention for a group of children with internalising and externalising behaviour difficulties. Thus, educational psychologists and educators who support children with such difficulties may wish to try the WOWW intervention. Professionals are encouraged to make the following considerations when implementing the WOWW intervention.

WOWW is a classroom intervention that can be used for CYP with a range of different needs. As with any school-based intervention, if a CYP operates within a complex system – for example, a difficult home life – the efficacy of the intervention may not permeate all levels of their system. However, WOWW can complement existing interventions in or out of school; there is no need to end or alter any support that the CYP receives in favour of WOWW.

The goals targeted within the weekly WOWW sessions should be aligned with the specific needs of the CYP. In the final phase of the study the WOWW goals are praised, scaled and discussed – thus bringing increased attention to them. Therefore,

behaviour change is more likely to happen for the specific behaviours that the intervention addresses through goal setting. In the current study, where a behaviour was not targeted (e.g. to enhance peer relationships), no improvements were made. A level of skill will be required of the WOWW coach to ensure that children and teachers collaborate and take ownership of goal setting, but that the WOWW coach draws attention to the very specific behaviours that the intervention seeks to improve, so that children and teachers value them as something to work towards as goals.

WOWW coaches must ensure that teachers participate voluntarily and feel positively about their role in the intervention. It is likely that WOWW would have less impact with teachers who were referred to the intervention by a senior member of school staff. Similarly, it is important that children provide fully informed consent to participate in WOWW and enjoy the intervention throughout. Without this enjoyment, the impacts of WOWW are less likely to be favourable.

Finally, outside of directly delivering or participating in the WOWW intervention, educational psychologists and educators can apply the principles of specific, positive praise, setting small goals and using scaling techniques to support children in school. These techniques are low in time, cost, resources and risk, yet could have positive impacts on children.

5.6 Concluding Comments

The current study offers a unique contribution to the literature by being the first study of WOWW which: applied it to a small group of children instead of a class; used classroom observation data; included parent participants and conducted the research in England. The study adds to literature in several areas, including: WOWW; SFBT;

positive psychology; secondary tier classroom interventions; interventions for internalising behaviours and externalising behaviours.

The findings of the study noted several positive trends in relation to the adapted WOWW intervention. Classroom observation data for the group of children showed increased on-task behaviour and a reduction in the most prevalent off-task behaviours of talking and inattention. Teacher interview comments showed marked improvement in four of the five students. Teacher-completed questionnaire data for the group indicated reduced scores of aggression/disruption, anxiety and inattention and concomitant increased scores of prosocial behaviours following the WOWW intervention. Teacher concern fell for all children and ratings of the group as motivated, engaged and asking for help appropriately increased.

Considering perceptions of the interventions, the children reported enjoyment of WOWW and feelings of improved concentration and listening. The parents liked what they knew of the intervention and particularly enjoyed receiving the letters. Finally, Mrs Goodman spoke positively of WOWW and felt its impacts on the children were significant. Cohen *et al.* (2011) stipulated that confidence can be achieved when differing data collection methods yield substantially the same results. As summarised, the differing measures converged and arrived at the same conclusions, adding strength to the findings of this study.

The limitations of the research were identified and future research could strengthen the voice of the child, ensure parental understanding of WOWW is greater and address methodological limitations by using more specific measures, employing multiple researchers and using video technology to record observations. It is hoped that this study raises awareness of positive approaches to behaviour management and

encourages other educational psychologists and teachers to try the WOWW intervention. The continued growth of SFBT and interventions such as WOWW may reduce the negative effects of managing children's behaviours and benefit both teachers and students in schools.

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Glossary of Terms

Term	Meaning
Behaviourism	Behaviourism is a scientific learning theory that focuses on the environment as influencing individual behaviour. Key concepts include reinforcement and conditioning.
Burn out	Burn out in teachers has been described as feeling emotionally exhausted, disconnected from students and having difficulties in classroom management and teaching (Oberle and Schonert-Reichl, 2016).
Constructivism	Constructivism is an epistemological position that views knowledge as something that is produced and constructed socially between people. Human beings are viewed as active and meaning-making in their understanding of their world.
Dialectical Pluralism	Dialectical pluralism is a metaparadigm that is often associated with mixed methods research. Dialectical thinking aims to overcome dualisms and binaries and enables researchers to interact with different ontologies and epistemologies (Johnson, 2017).
Miracle Question	The 'Miracle Question' originates from Solution-Focused Brief Therapy and involves asking a person what they would first notice if a miracle (that solved their problems) had happened while they were sleeping (De Jong and Berg, 2002).
Positive Psychology	Positive psychology is about finding ways that ordinary people can be happier and more fulfilled. It counters disease and deficit models and focuses on concepts such as wellbeing, contentment, satisfaction, hope, optimism, flow and happiness (Seligman and Csikszentmihalyi, 2000).
Pragmatism	Pragmatism is a philosophical position which promotes the use of whatever methods and approaches best fits the research aims. The approach encourages researchers to consider multiple perspectives about ontology, epistemology, axiology and methodology (Christ, 2013).
Realism	A pure realist approach suggests that objects have an independent existence, regardless of whether they are observed or experienced (Cohen *et al.,* 2011).
Relativism	In its extreme form, relativism maintains that there is no external, objective reality (Robson and McCartan, 2016). Instead, reality is mediated by our consciousness and the meanings that we attach to the world.

Self-efficacy	Self-efficacy relates to a person's belief that they can accomplish a task or be successful in a specific area.
Solution-Focussed Brief Therapy	SFBT is a widely used, strengths-based therapeutic approach, developed by Steve de Shazer and Insoo Kim Berg in the 1980s. Key components of SFBT include focusing on client's goals, eliciting exceptions to the problem and identifying client's strengths and resources (Bond *et al*., 2013).
Wellbeing	Wellbeing relates to a state of happiness characterised by good physical and mental health.

Appendices

Appendix 1: Systematic Literature Review Details

Appendix 1.1 Phase 1 Search Details

Search Terms	Limits	Yielded
(“children’s behaviour” OR "internalising behaviour" OR "externalising behaviour" OR "problem behaviour" OR "challenging behaviour" OR "child behaviour problems" OR "classroom behaviour" OR "disruptive behaviour" OR "child compliance" OR "classroom compliance" OR "classroom management" OR "teacher classroom management" OR "teacher behaviour" OR "on-task" OR "off-task" OR "behaviour management") AND (“intervention” OR “classroom intervention” OR “targeted intervention” OR “behavioural intervention” OR “behaviour intervention” OR “evidence-based interventions” OR “classroom management intervention”)	• Journal articles • Peer-reviewed • 2007-2017 • English language	• ERIC: 1213 • Web of Science: 640 • PsycInfo: 556

Appendix 1.2 Phase 2 Search Details

Search Terms	Limits	Yielded
“Good Behaviour Game” OR “Good Behavior Game” OR “GBG”	• Journal articles • Peer-reviewed • 2007-2017 • English language	• ERIC: 34 • Web of Science: 118 • PsycInfo: 128
“Check-in Check-out” OR “CICO”		• ERIC: 38 • Web of Science: 118 • PsycInfo: 62
“Class-Wide Function-Related Intervention Teams” OR “CWFIT”		• ERIC: 7 • Web of Science: 8 • PsycInfo: 9
“Working on What Works” OR “WOWW”		• ERIC: 7 • Web of Science: 1 • PsycInfo: 7

Appendix 1.3: Articles Excluded from the Review at Full Text Reading

Article Authors and Year	Intervention	Database retrieved from	Reason for exclusion
Reinke et al (2008)	Classroom check-up model	ERIC	Focused on consultation and coaching as opposed to in-class intervention
Axelrod and Zank (2012)	High probability commands	ERIC	Not a standardised intervention
Shuntmate and Wills (2010)	Functional behaviour analysis	ERIC	Not a standardised intervention
Trussell et al (2008)	Functional behaviour analysis	ERIC	Special education classroom
Sumi et al. (2012)	First Steps to Success	Web of Science	Intervention included home/family component
Sumi et al. (2013)	First Steps to Success	Web of Science	Intervention included home/family component
Flower (2014)	GBG	Web of Science	Review study
Klienman and Saigh (2011)	GBG	ERIC	High School
Leflot et al. (2010)	GBG	ERIC	From Netherlands
Spilt et al (2016)	GBG	Web of Science	From Netherlands
Hawken et al. (2015)	CICO	PsychInfo	Descriptive study
Simonsen et al. (2011)	CICO	Web of Science	Middle school
Wills et al. (2016)	CWFIT	Web of Science	Descriptive study

Appendix 1.4 Articles included in the review

Article Authors and Year	**Intervention**	**Database retrieved from**	**Phase 1 or 2 of Search**
Fernie (2016)	WOWW	ERIC	Phase 1
Kelly et al. (2009)	WOWW	PsychInfo	Phase 1
Lloyd *et al.* (2012)	WOWW	ERIC	Phase 1
Berzin *et al.* (2012)	WOWW	ERIC	Phase 2
Fernie (2016)	WOWW	ERIC	Phase 1
Elswick and Casey (2011)	GBG	ERIC	Phase 1
McGoey et al (2010)	GBG	ERIC	Phase 1
Wright and McCurdy (2011)	GBG	Web of Science	Phase 1
Coombes et al (2016)	GBG	PsychInfo	Phase 2
Donaldson et al. (2011)	GBG	PsychInfo	Phase 2
Donaldson et al. (2015)	GBG	PsychInfo	Phase 2
Lannie and McCurdy (2007)	GBG	ERIC	Phase 2
Tanol et al. (2009)	GBG	ERIC	Phase 2
Wahl et al. (2016)	GBG	PsychInfo	Phase 2

Dart et al. (2015)	CICO	Web of Science	Phase 1
Fairbanks et al. (2007)	CICO	ERIC	Phase 1
Hunter *et al.* (2014)	CICO	Web of Science	Phase 1
Miller et al. (2015)	CICO	Web of Science	Phase 1
Sobalvarro et al. (2016)	CICO	Web of Science	Phase 1
Campbell and Anderson (2008)	CICO	ERIC	Phase 2
Campbell and Anderson (2011)	CICO	ERIC	Phase 2
Kilgus et al. (2016)	CICO	ERIC	Phase 2
Sanchez et al. (2015)	CICO	PsychInfo	Phase 2
Todd et al. (2008)	CICO	ERIC	Phase 2
Caldarella et al. (2015)	CWFIT	ERIC	Phase 1
Kamps et al. (2015)	CWFIT	ERIC	Phase 1
Kamps et al. (2015)	CWFIT	Web of Science	Phase 1
Conklin et al. (2016)	CWFIT	PsycINFO	Phase 2
Kamps et al. (2011)	CWFIT	ERIC	Phase 2

Appendix 1.5 Research Details for Studies Included in the Review

Study author and year	Intervention	Participants and setting	Study design	Outcomes measured	Research methods
Coombes *et al.* (2016)	GBG	12 teachers, 222 students. UK	Mixed-methods concurrent triangulation	Student behaviour and teacher perceptions of intervention	Standardised teacher rating scale and semi-structured interviews
Donaldson *et al*. (2011)	GBG	5 teachers, 98 students. USA	AB	Student behaviour	Direct classroom observation
Donaldson *et al.* (2015)	GBG	5 teachers, 81 students. USA	ABAB	Student and teacher behaviour	Direct classroom observation
Elswick and Casey (2011)	GBG	1 teacher, 20 students. USA	AB (multiple baseline)	Student and teacher behaviour, teacher acceptability ratings	Direct classroom observation
Lannie and McCurdy (2011)	GBG	1 teacher, 22 students. USA	ABAB	Student and teacher behaviour	Direct classroom observation
McGoey *et al.* (2010)	GBG	3 teachers, 15 students. USA	ABAB	Student behaviour, teacher acceptability ratings	Direct classroom observation
Tanol *et al*. (2009)	GBG	2 teachers, 6 students. USA	ABA or CBC (two groups)	Student and teacher behaviour, teacher acceptability ratings	Direct classroom observation

Wahl *et al.* (2016)	GBG	3 teachers, 72 students. USA	AB (multiple baseline)	Student and teacher behaviour, student and teacher acceptability ratings	Direct classroom observation
Wright and McCurdy (2011)	GBG	2 teachers, 37 students. USA	ABAC and ACAB (two groups)	Student behaviour, student and teacher acceptability ratings	Direct classroom observation
Campbell and Anderson (2008)	CICO	2 students. USA	ABCBC (C: modified intervention)	Student behaviour	FBA, direct classroom observation, office referrals
Campbell and Anderson (2011)	CICO	4 students. USA	ABAB	Student behaviour	FBA, direct classroom observation, points on daily report card scores
Dart *et al*. (2015)	CICO	3 students. USA	AB and follow-up	Student behaviour, student and teacher acceptability ratings	Standardised teacher-completed rating scales, daily report card scores
Fairbanks *et al*. (2007)	CICO	14 students. USA	Pre-Post	Student behaviour	Direct classroom observation, teacher-completed rating scales, office referrals
Hunter *et al.* (2014)	CICO	4 students USA	ABAB (3 students) and AB (1 student)	Student behaviour, teacher acceptability ratings	Standardised teacher-completed rating scales, daily report card scores

Kilgus *et al.* (2016)	CICO	2 students. USA	AB-BA-AB-BA-AB	Student behaviour, teacher acceptability ratings	FBA, direct classroom observation
Miller *et al.* (2015)	CICO	4 students. USA	ABABC	Student behaviour, teacher acceptability ratings	FBA, direct classroom observation, daily report card scores
Sanchez *et al.* (2015)	CICO	3 students. USA	AB (multiple baseline)	Student behaviour, teacher acceptability ratings	FBA, daily report card scores
Sobalvarro *et al.* (2016)	CICO	2 students. USA	AB (multiple baseline)	Student behaviour, teacher acceptability ratings	Direct classroom observation, daily report card scores
Todd *et al.* (2008)	CICO	4 students. USA	AB (multiple baseline)	Student behaviour, teacher acceptability ratings	FBA, direct classroom observation, office referrals.
Caldarella *et al.* (2015)	CWFIT	5 teachers, 76 students. USA	Quasi-experimental, non-equivalent control group	Student and teacher behaviour, student and teacher acceptability ratings	Direct classroom observation
Conklin *et al*. (2016)	CWFIT	4 teachers, 80 students. USA	ABAB	Student and teacher behaviour, student teacher and acceptability ratings	Direct classroom observation

Kamps *et al.* (2011)	CWFIT	5 teachers, 107 students. USA	ABAB	Student and teacher behaviour, student and teacher acceptability ratings	Direct classroom observation
Kamps *et al.* *(2015a)*	CW-FIT	2 teachers, 2 classes (number of students unknown), 4 target students. USA	ABAB (for classes) ABCAC (for target students)	Student and teacher behaviour	Direct classroom observation
Kamps *et al.* *(2015b)*	CW-FIT	159 teachers, 159 classes, (number of students unknown). USA	Randomised control trial	Student and teacher behaviour, teacher acceptability ratings	Direct classroom observation, researcher-completed classroom management scale
Berzin *et al*. (2012)	WOWW	9 teachers, 200 students, USA	Pre-post, non-equivalent groups	Student and teacher behaviour	Teacher-completed rating scales, student administrative data e.g. office referrals, report cards
Brown *et al.* (2012)	WOWW	1 teacher, 25 students. UK	Pre-post and follow-up	Student behaviour and teacher perceptions on intervention	Teacher ratings of student behaviour, interviews with teacher and children

Fernie and Cubeddu (2016)	WOWW	1 teacher, 24 students. UK	Pre-post	Student and teacher behaviour, teacher perceptions on intervention	Teacher and student rating scales, teacher-completed questionnaire, child focus group
Kelly and Bluestone-Miller (2009)	WOWW	21 teachers, (number of students unknown). USA	Pilot data, pre-post	Student and teacher behaviour	Teacher-completed rating scales (researcher-made)
Lloyd *et al.* (2012)	WOWW	12 classes (number of teachers and students unknown.) UK	Pilot data, pre-post	Student and teacher behaviour, student and teacher perceptions on intervention	Focus groups with students, teacher-completed rating scales, teacher-completed evaluation form

Appendix 1.6 Findings on Children's Behaviour Change from Studies Included in the Review

Intervention	Study	Measures of children's behaviours	Findings
GBG	Coombes *et al.* (2016)	Teacher-completed rating scale (Teacher Observation of Classroom Adaptations), number of rules broken during GBG sessions, number of rules broken during non-GBG time, teacher perceptions of behaviour change (elicited through semi-structured interviews).	Improved behaviour rating scores post-intervention, number of rules broken during non-GBG time reduced from 20 per week to 5 per week over the school year of GBG implementation, themes: improved inclusivity and social participation, decreased aggressive and disruptive behaviour, pupil's concentration.
	Donaldson *et al.* (2011)	Number of disruptions (talking out of turn, out of seat, touching) per minute.	Mean reduction in disruption from baseline to GBG.
	Donaldson *et al.* (2015)	Number of disruptions (inappropriate noises, contact or out of seat) per minute.	Mean reduction in disruption from baseline to GBG.
	Elwsick and Casey (2011)	Frequency of: talking out of turn, out of seat and being disrespectful.	Decline in all frequencies of all behaviours following GBG implementation.
	Lannie and McCurdy (2007)	Rate of disruptive (e.g. calling out, out of seat, talking) and on-task (attending to the assigned work) behaviours.	Increased on-task behaviours and reduced off-task behaviours from baseline to GBG implementation.
	McGoey *et al.* (2010)	Rate of negative social interactions, off-task, tantrumming and disobeying established rules.	Decreased target behaviours in GBG phases compared with baseline and withdrawal phases.
	Tanol *et al.* (2009)	Targets behaviours: rule following and rule violations	Reduction in rule violation from baseline.

	Wahl *et al.* (2016)	Rate of student academic engagement and disruptions	Academic engagement increased and disruptions decreased.
	Wright and McCurdy (2011)	Disruptive and on-task behaviours	Increased on-task behaviour and reduced disruptive behaviours
CICO	Campbell and Anderson (2008)	Noncompliance, disruption, negative verbal or physical interaction, out of seat	Reductions in target behaviours following modifications made to the intervention based on a functional behaviour analysis.
	Campbell and Anderson (2011)	Problem behaviour, academic engaged time and percentage of points earned on CICO card.	Significant reductions in problem behaviours and increased academic engaged time.
	Dart *et al.* (2015)	Teacher completed scales - Student Internalising Behaviour Screening (SIBS), Direct Behaviour Rating Scales (DBRS).	2/3 students demonstrated significant increases in scores on DBRS, 3/3 no longer scored as at risk on SIBS.
	Fairbanks *et al.* (2007)	Percentage of intervals engaged in inappropriate physical contact, talking out of turn, inappropriate placement, noncompliance, non-disruptive off-task behaviour and academic engagement, office discipline referrals.	Reduction in disruptive behaviours and increase in academic engagement for all but 4 of the class, for the 4 non-responders a FBA was conducted and individualised adaptations to CICO were made which resulted in improved behaviours.
	Hunter *et al.* (2014)	Teacher-completed rating scales – SIBS, Social Skills Improvement System (SSIS), Daily Points Record (DPR) from CICO card.	Increased points on DPR card (increased prosocial behaviours), 3 out of 4 students reduced scores on SIBS, for SSIS – all 4 students' scores increased in the social skills scale and decreased in the internalising scale

	Kilgus *et al.* (2016)	Percentage of intervals of academic engagement and disruptive behaviour	CICO plus an added 'task escape' component resulted in significant increases in academic engagement and decreases in disruptive behaviour (compared to baseline and to normal CICO procedure)
	Miller *et al.* (2015)	Rates of academic engagement and problem behaviour, daily behaviour report cards.	Problem behaviour decreased and academic engagement increased in CICO phases compared to baseline and withdrawal. Mean ratings of appropriate behaviour increased for all participants on daily cards.
	Sanchez *et al.* (2015)	Percentages of points received on daily report cards.	All students' scores increased on daily report cards.
	Sobalvarro *et al.* (2016)	Percentages of intervals of off-task disruptive off-task non-disruptive and on-task behaviours, daily progress reports	Positive mean changes in on- and off-task behaviours for both students, increases in points on daily progress reports,
	Todd *et al.* (2008)	Rates of problem behaviours, office discipline referrals.	17.5% reduction in problem behaviour from mean baseline to mean CICO, office discipline levels reduced from 0.14 to 0.4 on average.
CWFIT	Caldarella *et al.* (2015)	Rates of on-task behaviour, academic engagement and disruptive behaviour	Group on-task behaviours were significantly higher, for at-risk students academic engaged time significantly increased, disruption decreased marginally.
	Conklin *et al.* (2015)	Rates of five behaviours: on-task, compliance, hand-raising, out-of-seat, and talking out	Group and individual data showed increases in students' class-wide on-task, compliance, and hand-raising behaviours, and decreases for talking-out and out-of-seat behaviours.

	Kamps *et al.* (2011)	Percentage of on-task behaviour and disruptive behaviours	Increased on-task behaviours in all classes and all year groups, frequency of disruptive behaviours reduced for target students.
	Kamps *et al.* (2015b)	Group on-task behaviour, target students' on-task and disruptive behaviour	Increased on-task behaviour in classes overall compared with baseline, 3 of the 4 target students on-task behaviours increased and stabilised
	Kamps *et al.* (2015a)	Group on-task behaviour.	Significant increase in on-task behaviour, significantly higher increase than for the control group.
WOWW	Berzin *et* al. (2012)	Administrative data e.g. information on report cards, number of office referrals.	Post-intervention report card data for WOWW students showed more on-task and best effort behaviour compared to same age students without intervention and compared to data on the previous year.
	Brown *et al.* (2012)	Teacher ratings of: class working as a team, respect towards adults, positive relationship between peers and listening skills; pupil ratings of: being polite, putting your hand up, being helpful	Teacher and pupil ratings increased from baseline to intervention end.
	Fernie and Cubeddu (2016)	Student ratings on class goals; teacher ratings on: relationship with peers, ability to accept each other, ability to tolerate others, respect for others and collaborative working; thematic analysis of children's views collected through a focus group.	Increased ratings on class goals from baseline to intervention end, statistically significant differences between pre- and post-intervention teacher ratings, the children reported increased motivation, noticed other children's positive behaviours.
	Kelly and Bluestone Miller (2009)	Teacher ratings of class behaviour and their sense of the children's perceptions of classes behaviour.	Statistically significant increases in teacher perceptions of their class as better behaved, and of their sense that their students perceive themselves as better behaved.

	Lloyd *et al*. (2012)	Children's views, teacher scaling of the children's relationships with each other and their collaborative work, teacher evaluation form	Children reported improvement such as their class being quiet and listening to the teacher more; increased teacher ratings of collaborative work and peer relationships; positive comments on teacher evaluation e.g. children more focused, value praise more etc.

Appendix 2: Details of the Pilot Study

Prior to the data collection in the main study, I completed three classroom observations of a group of six children in a primary school, using the Pupil Behaviour Schedule. This was a different primary school to where the main study was conducted. Consent was obtained from the individual children, their parents and their teacher prior to the observations.

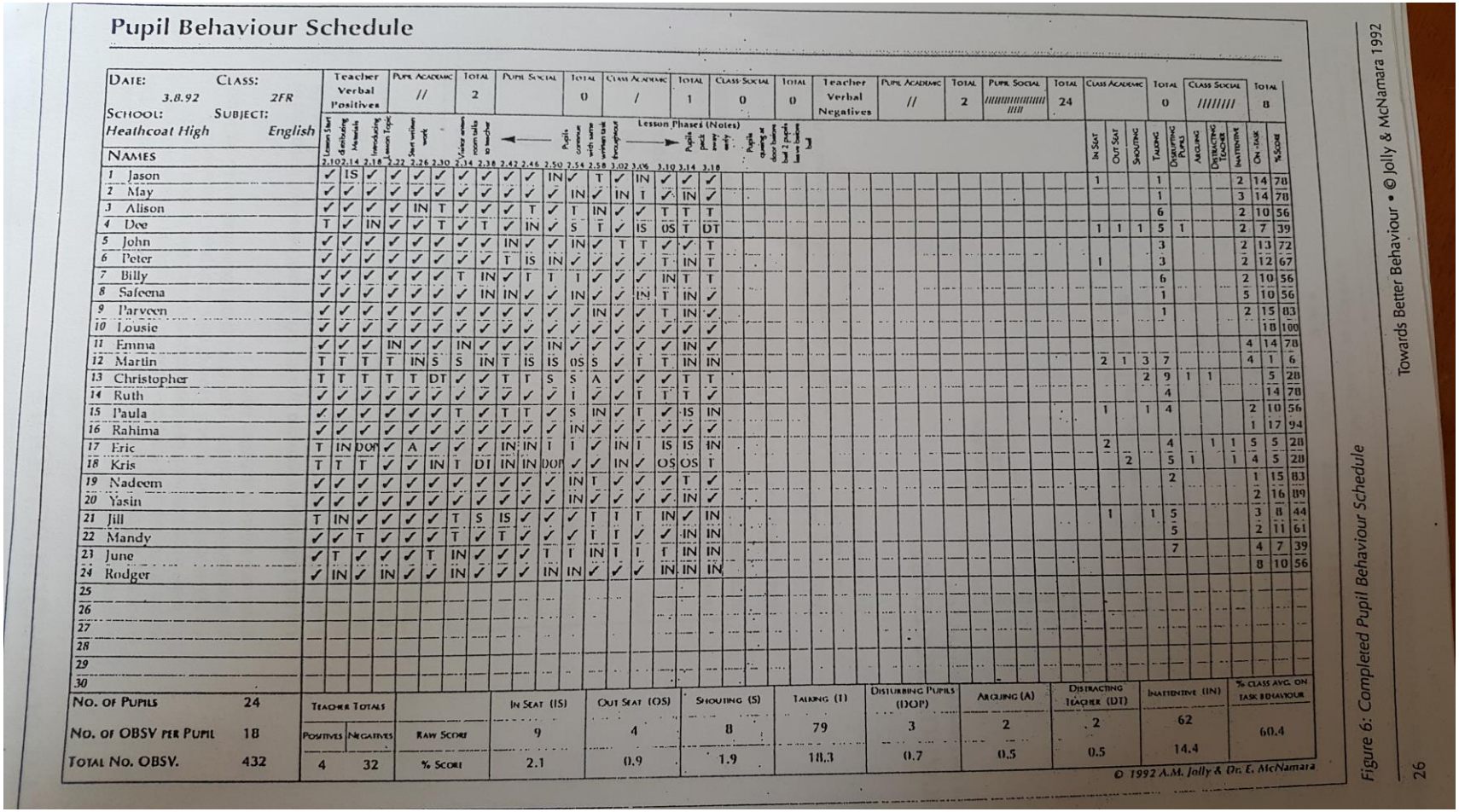
An assistant psychologist jointly completed the observations, using their own copy of the observation schedule. The purpose of this was to create some helpful dialogue around our personal interpretations of the observed behaviours. Where we differed in our coding of the children's behaviour, our discussion was helpful for me to refine my understanding of each code prior to the main observations e.g. to more closely consider whether a child is 'in-seat off-task' or 'inattentive'.

With the same group of six children discussed in the previous session, I led three WOWW intervention sessions. This involved me observing the group of children in a normal lesson for 40 minutes, giving feedback about each child's positive behaviour and then working with the group of children for 5-10 minutes to set and scale classroom goals.

This enabled me to become more fluent when delivering the WOWW sessions in the main study. It also helped give me practical insights, such as to use A3 paper for scaling and target setting. No data from the pilot study is included in the main study and no significant amendments were made following the pilot study.

Appendix 3: Pupil Behaviour Schedule

Appendix 3.1 Example of a Completed Pupil Behaviour Schedule (provided by Jolly and McNamara, 1992)



Pupil Behaviour Schedule

Date: 3.8.92 Class: 2FR
School: Heathcoat High Subject: English

Names	Teacher Verbal Positives	Pupil Academic	Total	Pupil Social	Total	Class Academic	Total	Class Social	Total	Teacher Verbal Negatives	Pupil Academic	Total	Pupil Social	Total	Class Academic	Total	Class Social	Total
		//	2		0	/	1	0	0		//	2	//////////// ////	24		0	////////	8

Lesson Phases (Notes)

Names	Lesson Start distributing Materials	Introducing Lesson Topic	Start written work	Voice comes round table to teacher	Pupils comment with same written task throughout	Pupils pack away early	Pupils queuing at door before bell 2 pupils leave before bell	In Seat	Out Seat	Shouting	Talking	Disturbing Pupils	Arguing	Distracting Teacher	Inattentive	On-task	% Score
2.10 2.14 2.18 2.22 2.26 2.30 2.34 2.38 2.42 2.46 2.50 2.54 2.58 3.02 3.06 3.10 3.14 3.18																	
1 Jason	✓	IS	✓	✓	✓	✓	✓	✓	✓	IN	✓	T	✓	IN	✓	✓	✓					1				1			2	14	78
2 May	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	IN	✓	IN	I	✓	IN	✓									1				3	14	78
3 Alison	✓	✓	✓	✓	IN	T	✓	✓	T	✓	I	IN	✓	✓	T	T	T									6				2	10	56
4 Dee	T	✓	IN	✓	✓	T	✓	T	✓	IN	✓	S	T	✓	IS	OS	T	DT				1	1	1		5	1			2	7	39
5 John	✓	✓	✓	✓	✓	✓	✓	IN	✓	✓	IN	✓	T	T	✓	✓	T									3				2	13	72
6 Peter	✓	✓	✓	✓	✓	✓	✓	T	IS	IN	✓	✓	✓	T	IN	T						1				3				2	12	67
7 Billy	✓	✓	✓	✓	✓	✓	T	IN	✓	T	T	I	✓	✓	✓	IN	T	T								6				2	10	56
8 Safeena	✓	✓	✓	✓	✓	✓	✓	IN	IN	✓	✓	IN	✓	✓	IN	T	IN	✓								1				5	10	56
9 Parveen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	IN	✓	✓	T	IN	✓									1				2	15	83
10 Lousie	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓														18	100
11 Emma	✓	✓	✓	IN	✓	✓	IN	✓	✓	✓	IN	✓	✓	✓	✓	✓	IN	✓												4	14	78
12 Martin	T	T	T	T	IN	S	S	IN	T	IS	IS	OS	S	✓	T	T	IN	IN				2	1	3	7					4	1	6
13 Christopher	T	T	T	T	T	DT	✓	✓	T	T	S	S	A	✓	✓	✓	T	T						2	9	1	1			5	28
14 Ruth	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	I	✓	✓	I	T	T	✓							4					14	78
15 Paula	✓	✓	✓	✓	✓	✓	T	✓	T	T	✓	S	IN	✓	T	✓	IS	IN				1		1	4				2	10	56
16 Rahima	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	IN	✓	✓	✓	✓	✓													1	17	94
17 Eric	T	IN	DOP	✓	A	✓	✓	✓	IN	IN	I	I	✓	IN	I	IS	IS	IN				2			4		1	1	5	5	28
18 Kris	T	T	T	✓	✓	IN	T	DT	IN	IN	DOP	✓	✓	IN	✓	OS	OS	T					2		5	1		1	4	5	28
19 Nadeem	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	IN	T	✓	✓	✓	T	✓							2				1	15	83
20 Yasin	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	IN	✓	✓	✓	✓	IN	✓												2	16	89
21 Jill	T	IN	✓	✓	✓	✓	T	S	IS	✓	✓	✓	T	I	T	IN	✓	IN				1		1	5					3	8	44
22 Mandy	✓	✓	T	✓	✓	✓	T	✓	T	✓	✓	✓	T	T	✓	✓	IN	IN							5					2	11	61
23 June	✓	T	✓	✓	✓	T	IN	✓	✓	✓	T	I	IN	I	I	T	IN	IN							7					4	7	39
24 Rodger	✓	IN	✓	IN	✓	✓	IN	✓	✓	✓	IN	IN	✓	✓	✓	IN	IN	IN												8	10	56
25																																
26																																
27																																
28																																
29																																
30																																

No. of Pupils	24
No. of OBSV per Pupil	18
Total No. OBSV.	432

Teacher Totals			In Seat (IS)	Out Seat (OS)	Shouting (S)	Talking (T)	Disturbing Pupils (DOP)	Arguing (A)	Distracting Teacher (DT)	Inattentive (IN)	% Class Avg. on Task Behaviour
Positives	Negatives	Raw Score	9	4	8	79	3	2	2	62	60.4
4	32	% Score	2.1	0.9	1.9	18.3	0.7	0.5	0.5	14.4	

Figure 6: Completed Pupil Behaviour Schedule

Towards Better Behaviour • © Jolly & McNamara 1992

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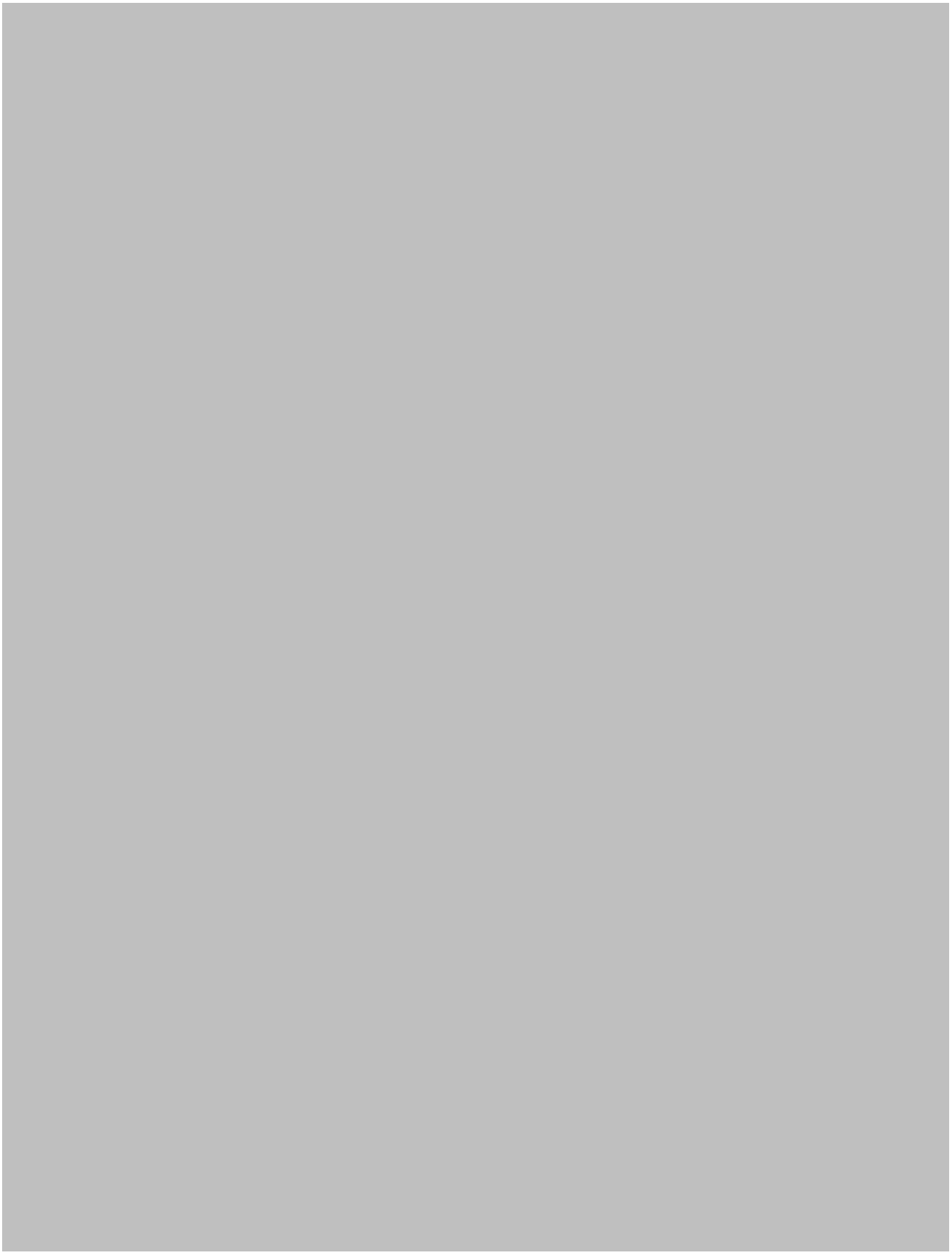
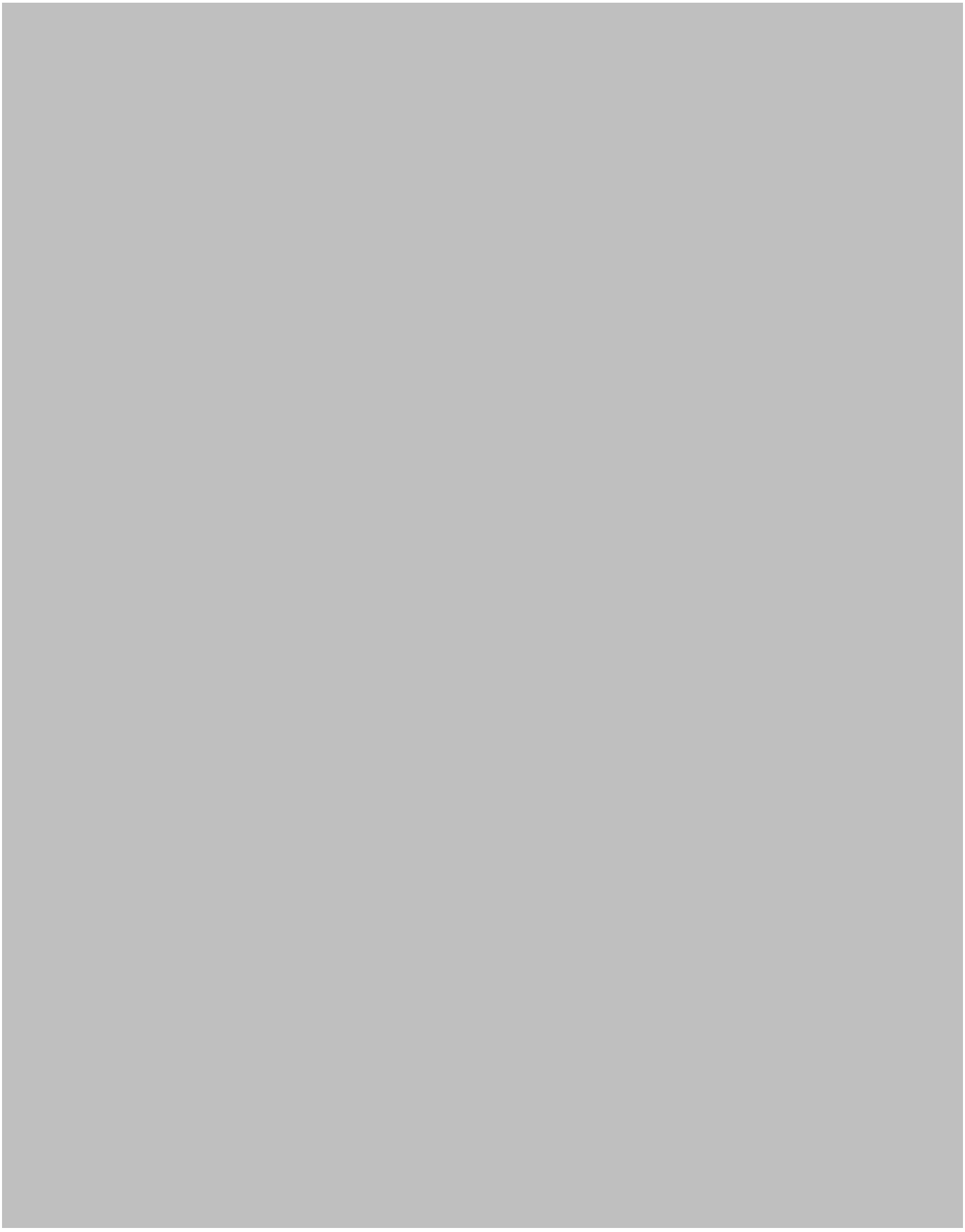
Appendix 3.2 Descriptions of Behaviours Coded in the Pupil Behaviour Schedule

Behaviour	Description/Examples (Jolly and McNamara, 1992)
Inappropriate in-seat behaviour	In-seat fidgeting; turning round; leaning back in chair; sitting out of position; rocking; playing with items.
Inappropriate out of seat behaviour	Walking about the classroom; leaving class; changing place; climbing on/under/around furniture.
Shouting out	(non-task related) e.g. to attract attention of another pupil; shouting out answers inappropriately e.g. without raising hand; making a joke/wisecrack.
Inappropriate talking	e.g. social conversations
Distracting the teacher	i.e. engaging teacher inappropriately e.g. non-task related conversations; making personal comments to teacher – about dress/appearance
Arguing with/challenging the teacher	e.g. backchat; refusing to follow instructions; disregarding/ignoring specific teacher instruction; prevarication and petulant behaviour; commenting inappropriately to teacher about work
Disturbing other pupils	e.g. interfering with or damaging possessions/work/person; taking, borrowing, throwing property/equipment; making demeaning/disapproving comments about others or singing/chanting or non-verbal noises including whistling and humming.
Inattentive to task	e.g. daydreaming, attending to other pupils' behaviour

Appendix 4: The Social Behaviour Questionnaire (Tremblay, 1992)





Appendix 5: Interview Schedules

Appendix 5.1 Pre-Intervention Semi-Structured Interview Schedule for the Class Teacher

Introduction

Thank you for agreeing to take part in the WOWW study and for talking to me now. I will be audio recording this interview using this Dictaphone so that I can capture everything accurately and so that I can analyse it afterwards. Straight after this interview, I will transfer the recording to an encrypted memory stick and delete it from the Dictaphone. You can choose to withdraw your data at any point during the intervention, or one month after the end of the intervention.

The interview will focus on the six children in the WOWW intervention. Here is a list of the six children's initials and their assigned number, during the interview I will ask questions about, for example, 'Pupil 1' instead of using their initials or names. If you could do the same, that would be great, but don't worry if you do use their name as I can make this anonymous in the transcript. I will be asking some questions about the children's behaviour and about your feedback to the children.

Topic	Possible Questions	Possible Follow up Questions (Prompt)	Probes
Section 1: Children's classroom behaviour.	Could you talk for 1 minute about the classroom behaviour of (Pupil 1, 2, 3, 4, 5, 6) since joining your class in September?	Have you noticed any patterns with this behaviour? Times when it is better or worse?	Is there anything else you would like to say about the pupil at this time?
	Could you rate your current level of concern about the classroom behaviour of (Pupil 1, 2, 3, 4, 5, 6) on this scale.	Could you talk a little more about this rating?	Try to choose one number that represents your concerns.
	If you had some goals for the six children as a group, about behaviour in the classroom, what would they be?	How would things be different if the goals were met?	Frame goals in positive descriptions e.g. 'to sit attentively during carpet time' as opposed to 'stop getting off the carpet'
	For each goal, where would you rate the group currently? 10 being the goal fully	Could you tell me what this rating means for you?	Try to choose one number that represents the current situation.

	met and 1 being the goal not met on any occasions.		
Section 2: Nature of teacher feedback to the focus children.	Thinking in terms of percentages, how much positive compared to negative feedback do you think you give to the focus children?	Any reasons for this?	You can consider them as a group, rather than individually. i.e. is it 50% positive and 50% negative?
	Thinking again in terms of percentages, how much of feedback to the focus children is about behaviour and how much is about academic work?	Any reasons for this?	You can consider them as a group, rather than individually. i.e. is it 50% social and 50% academic?
	Could you talk about how you think (Pupil 1, 2, 3, 4, 5, 6) responds to positive feedback in class?	Do they prefer verbal or visual feedback? What rewards do they like?	Can you think of any specific examples?

Appendix 5.2 Post-Intervention Semi-Structured Interview Schedule for the Class Teacher

Introduction

Thank you for your participation in the WOWW study and for talking to me again now. As before, I will be audio recording this interview using this Dictaphone so that I can capture everything accurately and so that I can analyse it afterwards. Straight after this interview, I will transfer the recording to an encrypted memory stick and delete it from the Dictaphone. You can choose to withdraw your data at any point during the intervention, or one month after the end of the intervention.

The interview will focus on the six children in the WOWW intervention. Here is a list of the six children's initials and their assigned number, during the interview I will ask questions about, for example, 'Pupil 1' instead of using their initials or names. If you could do the same, that would be great, but don't worry if you do use their name as I can make this anonymous in the transcript. I will be asking some questions about the children's behaviour, about your feedback to the children and about your thoughts on the WOWW intervention.

Topic	Possible Questions	Possible Follow up Questions (Prompt)	Probes
Section 1: Children's classroom behaviour.	Could you talk for 1 minute about the current classroom behaviour of (Pupil 1, 2, 3, 4, 5, 6)?	Have you noticed any patterns with this behaviour? Times when it is better or worse?	Is there anything else you would like to say about the pupil at this time?
	Could you rate your current level of concern about the classroom behaviour of (Pupil 1, 2, 3, 4, 5, 6) on this scale.	Could you talk a little more about this rating?	Try to choose one number that represents your concerns.
	In our first interview, you identified these goals (researcher shows sheet with goals and ratings). You rated each goal for how fulfilled they were by the group of children, 12 weeks ago. Could you now rate each goal again for the present time? 10 represents the goal fully met and 1 represents the goal not met on any occasions.	Could you tell me what this rating means for you?	
	If you had some new goals for the six children as a group, about behaviour in the classroom, what would they be?	How would things be different if the goals were met?	Frame goals in positive descriptions e.g. 'to sit attentively during carpet time' as opposed to 'stop getting off the carpet'
Section 2: Nature of teacher feedback to the focus children.	Thinking in terms of percentages, how much positive compared to negative feedback do you think you give to the focus children?	Any reasons for this?	You can consider them as a group, rather than individually. i.e. is it 50% positive and 50% negative?
	Thinking again in terms of	Any reasons for this?	You can consider them as a group,

	percentages, how much of feedback to the focus children is about behaviour and how much is about academic work?		rather than individually.
Section 3: WOWW intervention.	What impact has the WOWW intervention had on you?	How do you know? What have you noticed that you are doing differently or better? What factors do you think have accounted for these changes?	
	What impact has the WOWW intervention had on the group of children?	How do you know? What have you noticed that they are doing differently or better? Can you talk about any specific changes or examples about individual pupils? What factors do you think have accounted for these changes?	
	What did you like about the WOWW intervention?	How did it feel getting feedback in front of the class? Which elements of the intervention were most useful? Could you carry on some of the key principles your teaching practice?	
	What do you think could have been better about the WOWW intervention?	What would you say to another teacher who was about to participate in WOWW? Would you add or remove anything to the programme?	
	WOWW is usually delivered with a whole class, how effective did you feel	Considering the pupil's SEN, were there any barriers or facilitators to WOWW for children	

	it was with a group of children?	with additional needs? Within the group, were there any children that it had more or less impact with? What factors do you think affected this?	

Appendix 5.3 Follow-Up Semi-Structured Interview Schedule for the Class Teacher

Introduction

Thank you again for your participation in the WOWW study and in our third and final interview. As before, I will be audio recording this interview using this Dictaphone so that I can capture everything accurately and so that I can analyse it afterwards. Straight after this interview, I will transfer the recording to an encrypted memory stick and delete it from the Dictaphone. You can choose to withdraw your data at any point during the intervention, or one month after the end of the intervention.

The interview will focus on the six children in the WOWW intervention. Here is a list of the six children's initials and their assigned number, during the interview I will ask questions about, for example, 'Pupil 1' instead of using their initials or names. If you could do the same, that would be great, but don't worry if you do use their name as I can make this anonymous in the transcript. I will be asking some questions to get an update on the children's behaviour.

Topic	Possible Questions	Possible Follow up Questions (Prompt)	Probes
Section 1: Children's classroom behaviour.	Could you talk for 1 minute about the current classroom behaviour of (Pupil 1, 2, 3, 4, 5, 6)?	Have you noticed any patterns with this behaviour? Times when it is better or worse?	Is there anything else you would like to say about the pupil at this time?
	Could you rate your current level of concern about the classroom behaviour of (Pupil 1, 2, 3, 4, 5, 6) on this scale.	Could you talk a little more about this rating?	Try to choose one number that represents your concerns.
	In our first interview, you identified these goals (researcher shows sheet with	Could you tell me what this rating means for you?	

	goals and ratings). You rated each goal for how fulfilled they were by the group of children in our first and second interview. Could you now rate each goal again for the present time? 10 represents the goal fully met and 1 represents the goal not met on any occasions.		
	Could you talk about the last 6 weeks since the intervention ended, has there been any significant changes in the focus children's classroom behaviour?	Have things got better, worse, stayed the same?	
Section 2: Perceptions of WOWW	Finally, are there any other comments or thoughts you wanted to share about WOWW?	Any final remarks about your experience?	

*Example Scale

Pupil 1

Please tick one box.

Least concerned Most concerned

1	2	3	4	5	6	7	8	9	10

Appendix 5.4: Semi-Structured Interview Schedule for Parent Interviews

Introduction

Thank you again for your child's participation in the WOWW study and for talking to me today. I will be audio recording this interview using this Dictaphone so that I can capture everything accurately and so that I can analyse it afterwards. Straight after this interview, I will transfer the recording to an encrypted memory stick and will delete it from the Dictaphone. You can choose to withdraw your data at any point during, or up to one month after, this interview. I will be asking some questions about your child's behaviour and about the WOWW intervention.

Topic	Possible Questions	Possible Follow up Questions (Prompt)	Probes
Children's behaviour.	Have you noticed any changes to your child's behaviour at home over the last 10 weeks?	Could you give me examples? What is s/he doing differently?	Positive or negative changes?
	Do you think there has been any changes to your child's behaviour in school over the last 10 weeks?	Could you give me examples? What is s/he doing differently?	Any feedback from teaching staff? Any comments from your child?
WOWW intervention.	Has your child spoken about the WOWW intervention at home?	Examples of what child has said?	Any mention of someone coming in to watch lessons or someone saying nice things to them in front of the class?
	Do you think the WOWW intervention has had an impact on your child?	What makes you say that? What factors within the intervention do you think have had impact?	Positive or negative?
	From what you know of the WOWW intervention, is there anything that you liked about it?		Could refer to information sheet, comments from child, comments from school staff, personal opinions etc.
	From what you know of the WOWW intervention, is there		Could refer to information sheet, comments from

	anything that you did not like about it?		child, comments from school staff, personal opinions etc.

Appendix 5.5: Semi-Structured Interview Schedule for Focus Group with children

Introduction

Hello everyone, as you know, my name is Sophie. I would like to ask you all a few questions. This little thing here (Dictaphone) is recording everything that we are saying. Before we get started, I'm going to give you a number (hands out card with large number on), I want you to say your number out loud, then tell me what your favourite food is, like this 'I'm number 1 and my favourite food is pizza'. This will help this little thing (Dictaphone) to know who each of you are when you talk. Okay your turn…your turn…your turn. Thank you.

Now, I want to make sure that everybody has their turn to speak. That means only one person speaks at a time. To help us, you can only speak if you are holding this little penguin, like me. If you want to talk, and you haven't got the penguin, put your hand up and I will give you the penguin. Let's have a practise with me asking a question. What is your favourite story or TV show? (gives each child turn to speak with penguin). Okay, now let's start the real questions.

Topic	Possible Questions	Possible Follow up Questions (Prompt)	Probes
WOWW intervention	Do you think our special WOWW group has helped you in school?	What is different about you in school now? What did it help with most? Has anything got better?	
	If I asked (teacher's name), what would she say about your behaviour now?	Is this better than before our special WOWW group? In what way?	
	Have you noticed anything different about (teacher's name) since our special WOWW group?	Is she saying different things to you? What kind of things?	
	What did you like about our special WOWW group?		

	What didn't you like about our special WOWW group?		

Appendix 5.6 Semi-Structured Interview Schedule for Individual Interviews with children

Hello (child's name), as you know, my name is Sophie. I would like to ask you a few questions. They are the same questions as you answered when we were all together as a group. Like last time, this little thing here (Dictaphone) is recording everything that we are saying. If you're not sure of how to answer a question, don't worry – just try your best.

Topic	Possible Questions	Possible Follow up Questions (Prompt)	Probes
WOWW intervention	Do you think our special WOWW group has helped you in school?	What is different about you in school now? What did it help with most? Has anything got better?	
	If I asked (teacher's name), what would she say about your behaviour now?	Is this better than before our special WOWW group? In what way?	
	Have you noticed anything different about (teacher's name) since our special WOWW group?	Is she saying different things to you? What kind of things?	
	What did you like about our special WOWW group?		
	What didn't you like about our special WOWW group?		

Appendix 6: WOWW Handbook

Working on What Works (WOWW)

A handbook for teachers and parents/guardians

Solution-Focused:

The WOWW approach is based on Solution-Focused practices. The key assumptions, many that you will be familiar with, are:

- **If there is no problem with something, do not try to change it.**

- **If something is working well, do more of it.**
  It's easier for a child to repeat what they're already doing well rather than creating a new behavioural pattern.

- **If something is not working, do not do it again, do something different.**
  We often do the same thing over and over with children and expect different results. Why?

- **Small changes are happening all the time.**
  Change is inevitable, once we accept this, we can look for small changes that children and adults are making for the better. Look for positive changes.

- **The future can be created.**
  Some approaches look to past events for predictions of a person's future. Solution-focused approaches see that the future can be shaped by decisions about what we want today and tomorrow.

- **There is no direct connection between problems and solutions.**
  Logic has taught us that if we keep breaking down the problem we'll find the solution. However, solutions are there, all around us – waiting to be noticed. Small changes may start to solve big problems.

- **No problem happens all the time.**
  For every problem, there are times when it occurs and times when it does not. For example, a particularly disruptive child may sit perfectly well in assembly. A shy or anxious child may sing in front of their entire family.

- **Hold children accountable for solutions, not problems.**
  Lots of time is spent trying to get children to admit their mistakes and trying to get them to change. However, one of the most ineffective ways to help someone change is to force them to do something against their wishes. Encourage children to do things on their own and to think about solutions.

- **Aim for change, not just compliance.**
  For a long time, activities with children focused on them following adults' directions. However, complying with adults' instructions does not always lead to genuine change in children's thinking or behaviour. Instead of telling children what to do, try observing them and asking questions. It forces us to watch and listen carefully. We often find that they have lots of ideas about themselves. Plus, when it's the child ideas, they will change more and for a longer time than when we force them to follow adult ideas.

WOWW assumptions

In the WOWW approach assumptions are made about children, teachers and parents/guardians. These are described below:

Children want:

- **Adults in their lives to be proud of them;**
- **To learn new things, master knew skills and gain knowledge;**
- **To be accepted as part of social group and to be involved in activities with others; and**
- **To voice their opinion and make choices.**

Teachers want:

- **To provide a good education to enhance children's chances of success in life;**
- **To have a positive influence on every child and to watch each one master new challenges;**

- **Positive relationships with children as they believe that's when children learn best; and**
- **To feel that they are good teachers.**

Parents/guardians want:

- **To be proud of their children and to hear good things about them;**
- **To have good relationships with their children;**
- **Their children's futures to be better than theirs; and**
- **To feel that they are good parents.**

WOWW approach

The WOWW approach involves children and teachers working collaboratively to set goals for positive behaviour in the classroom. An outsider (in this case, Sophie Pitt – Trainee Educational Psychologist) comes and watches the children and teacher in their normal classroom, doing their normal activities. That person notices lots of good things and shares this with the children and teachers. These positive things then become the starting point for thinking about goals. What can the children do more of? What do they *want* to do more of?

Children will be asked to measure their goals on scales of 1-10. For the scale to be useful, the group of children and the teacher must agree on what the end point looks like. So if the goal is to 'sit nicely on the carpet'. What does a 10 mean? It might mean that the children go to the carpet as soon as the teacher calls them, they sit with crossed legs, looking up at the teacher, and they only talk when they are invited to. This can work the same at home. If your goal with your child is that they 'get themselves ready for school in the morning', what is 10/10? Does it mean putting on their school uniform, eating their breakfast and brushing their teeth independently. Where do you and your child feel that they are now on this scale? What would it look like if they were one up from their

current rating? You could easily make 1-10 scales at home and you and your child could think about where they are on the scale.

1 ——————————————————————————— **10**

Positive feedback is a really big part of the WOWW approach. Compliments are a good way to bring attention to the times where children have already experienced success, and to encourage more of it! Positive feedback is excellent at building relationships and encouraging the child to want to do more of what is making the adult proud. Even when we need to give guidance to children, we can frame it positively like saying 'quiet voices' instead of 'STOP TALKING'.

Thank you for taking the time to read this handbook. If you have any questions, please feel free to contact me on: XXXX or XXXX

Appendix 7: Example of Comments Given During WOWW Sessions

Date: 7th December 2016	
Name	**Positive Comment Shared:**
Bruce	You were the first person in the class to stand up and do the actions for the story. Well done!
Edward	While Mrs Goodman was talking through the text map, you had your eyes on her the whole time and were showing lovely listening skills.
Tania	You helped your table to win a point by following instructions straight away and showing Mrs Goodman that you were ready to learn!
Tayshaun	Wow, you joined in with all of the actions from the text map for your story, and managed to remember them as you went along.
Luke	Luke, you sat so quietly and were so still while Mrs Goodman was talking about verbs and tenses. Good job!
Mrs Goodman	You brought so much life and energy to the class when you were going through the text map with the actions, you were smiling the whole time and encouraging all children to participate.

Appendix 8: Weekly Goals and Ratings

Phase	Week (date)	Goals	Rating (/10)
1	1 (22.11.16)	No goal setting or rating in this phase	
	2 (30.11.16)		
	3 (07.12.16		
2	4 (13.12.16)	When the teacher is talking, we will be quiet and look at her.	5/10
	5 (11.01.17)	When the teacher is talking, we will be quiet and look at her. *We will give answers and ideas in front of the class.*	9/10 6/10
	6 (18.01.17)	When the teacher is talking, we will be quiet and look at her. We will give answers and ideas in front of the class. *We will smile and show enthusiasm in lessons.*	10/10 9/10 5/10
3	7 (25.01.17)	We will give answers and ideas in front of the class. We will smile and show enthusiasm in lessons. *We will stay still when we are on the carpet.*	8/10 10/10 5/10
	8 (01.02.17)	We will stay still when we are on the carpet. *We will ignore distractions*	7/10 4/10
	9 (07.02.17)	We will stay still when we are on the carpet. We will ignore distractions	7/10 9/10
	10 (14.02.17)	We will stay still when we are on the carpet. We will ignore distractions	9/10 10/10

New goals for the week are italicised in the table.

Appendix 9: Consent

Appendix 9.1 Project Information Sheet for the Class Teacher

Project Information Sheet

Research Project Information Sheet

An adaptation of the 'Working on What Works' (WOWW) approach

Background information

This information leaflet has been given to you because we are seeking your permission for you and six children in your class to take part in a research project run by a postgraduate research student (Sophie Pitt) at The University of Birmingham. Before you decide whether you and your pupils would like to take part, please read this leaflet so that you understand why the research is being conducted and what it will involve. If you would like further information, or would like to ask any questions about the information below, do not hesitate to ask (contact details are provided at the end of this leaflet).

Purpose of the study

The purpose of this study is to investigate the effects of a solution-orientated intervention called 'Working on What Works' (WOWW). The WOWW programme targets both teachers and children and aims to improve positive behaviour in the classroom. Research has shown WOWW to be an effective intervention at improving teachers' confidence and their relationships with pupils. Research has also shown improvement in children's classroom behaviours following the intervention. WOWW is usually delivered with a class teacher and their whole class. This study aims to find out how effective WOWW is when it is delivered with a class teacher and a group of six pupils with additional needs in school.

What will happen if I choose to take part?

If you choose to participate in this research you will be asked to sign a consent form. Once you have given your consent (and the children and parents have given theirs too), the research study will begin. Your involvement will include:

Before the WOWW intervention

- 3 lesson observations of you and the six children, completed by the researcher (you can choose 3 different lessons on 3 different days).
- 1 45-minute interview with the researcher about you and the six children.

- 1 short questionnaire for you to fill in about each of the six children.

The children will also complete a short questionnaire at this point.

WOWW intervention

- 30-minute introduction to WOWW
- 10 lesson observations over 10 weeks.
- The researcher will observe you and the six children for 45 minutes once per week.
- After the 45-minute observation, the researcher will give a piece of specific, positive feedback to you and each of the six children in front of your class.
- After the positive feedback, you, the researcher and the six children will complete a 10-minute activity away from the rest of your class.
- During this time, the other children in your class will need to be completing an activity set by you and supervised by a teaching assistant.
- The 10-minute activity will involve setting and rating positive classroom goals for the six children.

1-2 weeks after the WOWW intervention

- 3 further lesson observations of you and the six children (again, you can choose the lessons).
- 1 45-60-minute interview with the researcher about you, the six children and your thoughts on the WOWW intervention.
- 1 short questionnaire for you to fill in about each of the six children.

At this point, the six children would also complete a questionnaire and would take part in a 30-minute focus group interview with the researcher. There will be two focus groups with three of the children in each. A teaching assistant would need to be present during these two focus groups. The parents will also be invited for an interview with the researcher during this time.

6 weeks after the WOWW intervention

- 3 further lesson observations of you and the six children (again, you can choose the lessons).
- 1 20-30-minute interview with the researcher about the six children.
- 1 short questionnaire for you to fill in about each of the six children.

Please note that an audio recording will be made of each interview using a Dictaphone.

What are the possible benefits of taking part?

This research project will help us to understand the effects of the WOWW intervention when it is delivered with a small group of children with additional needs. This could help with future research and future interventions in schools. We hope that the sessions will be enjoyable for you and the children. We also hope that there will be an increase in the children's on-task behaviour during lessons. The intervention will target

specific positive behaviours such as ‘sitting attentively during carpet time’. It is hoped that the children will improve on these specific behaviours too. Finally, we are hopeful that the WOWW intervention will have a positive impact on you and your teaching practice. During the intervention, you will receive a handbook with more information about the WOWW approach and about positive psychology in the classroom.

What are the possible risks of taking part?

There are minimal risks to you and the children in your class. The intervention only looks at the children’s positive behaviours and disruptions to lessons are minimal. Below is a list of possible risks and how they will be managed:

- The six children may find it uncomfortable receiving positive praise in front of their class. If this is the case, the researcher will find other ways to praise the child e.g. 1:1 praise or a letter.
- The other children in your class may feel left out if they are not getting positive praise in front of the class. To help with this, on the 10 days of the WOWW intervention, you can give each child in your class a piece of positive feedback throughout the day. The researcher can give you a chart to help you monitor this.
- You may experience feelings of stress or anxiety in relation to being observed many times in one term. It is hoped that you will develop a collaborative relationship with the researcher and that you can feel relaxed during observations. Also, you have the right to end the study at any point.

If I change my mind, can I withdraw from the study?

Yes. If at any point during the study you wish to withdraw, you can inform the researcher via email or via Mrs (headteacher) and the study would end immediately. You do not have to give a reason and there would be no consequences to you or your professional reputation. If, after the study, you want to withdraw your data, you have one month from the end of the study to inform the researcher of this via e-mail or via Mrs (headteacher). Any data already collected would be destroyed.

Will participant information be kept confidential in this study?

Yes. The researcher complies with the Data Protection Act (1998) in terms of handling, processing and destroying all participants’ data. All data collected will be kept strictly confidential, with all data kept anonymously so that no participant can be personally identified. The data will be destroyed 10 years after the research is completed, having been stored securely over the interim.

Any paper copies of data (such as completed questionnaires) will be stored securely at XXXX Educational Psychology service. Any digital copies of data (such as audio recordings of interviews) will be stored securely on an encrypted memory stick.

What will happen with the results of the research study?

A summary of the key findings will be shared with you in an information sheet. This information will also be shared with the six children and their parents.

In addition, the results of the study will be written up as part of the researcher's thesis for the Doctorate in Applied Educational and Child Psychology. The study will also be written as a journal article and submitted for publication to a relevant professional journal. The work may be presented at conferences. Your name (and the name of the school and all other research participants) will remain anonymous at all times. Some information about you and the school will be included: your sex, your position within the school, the school's OFSTED rating and a brief description of it i.e. mainstream, primary, single form entry.

Who is organising the research?

The research is organised by the University of Birmingham and XXXX Educational Psychology Service.

Who should I contact if there is a problem?

No risks should arise for you as the teacher, of for any of the children as a result of participating in this research. However, if a problem were to arise, then the researcher, (Sophie Pitt) or the researcher supervisor (Anita Soni) can be contacted between 9-5pm Monday-Friday. Contact details are at the end of this information leaflet.

Who has reviewed the study?

This research project has been approved by the Humanities and Social Science Ethical Review Committee at the University of Birmingham.

What do I do next?

If you are willing to participate in this study please complete the consent form and the researcher will liaise with you regarding dates to begin the study.

Contact details for further information:

Sophie Pitt (Doctoral Researcher, University of Birmingham and Trainee Educational Psychologist, XXXX):

Anita Soni (Research Supervisor, University of Birmingham):

XXXX (Supervising Educational Psychologist, XXXX): XXXX

Thank you very much for taking the time to read this information leaflet and for considering your participation in the study.

Appendix 9.2 Project Information Sheet for the Child Participants

Hello,

My name is Sophie. I look like this:

[picture]

I am doing a project for my big school, called university, and I want you to be part of it!

If it is okay with you, I am going to come into some of your lessons over the next few months and watch the wonderful things you do in school.

I also want to do some activities with you, like asking you questions and telling you about some of the good things I saw.

If you don't want to answer my questions or take part in my project, that is fine! Just tell your teacher at any time, you don't have to say why.

You can ask your teachers any questions about the project. You can also ask me – your parents or your teacher can help you to get in touch with me.

If you want to take part in the project, please can you write your name on the form on the next page?

Thank you for listening!

Appendix 9.3 Project Information Sheet for Parents

Project Information Sheet

Research Project Information Sheet

An adaptation of the 'Working on What Works' (WOWW) approach

Background information

This information leaflet has been given to you because we are seeking your permission for your child to take part in a research project run by a postgraduate research student (Sophie Pitt) at The University of Birmingham. Before you decide whether you would like your child to take part, please read this leaflet so that you understand why the research is being conducted and what it will involve. If you would like further information, or would like to ask any questions about the information below, do not hesitate to ask (contact details are provided at the end of this leaflet).

Purpose of the study

The purpose of this study is to investigate the effects of a solution-orientated intervention called 'Working on What Works' (WOWW). The WOWW programme targets both teachers and children and aims to improve positive behaviour in the classroom. Research has shown WOWW to be an effective intervention at improving teachers' confidence and their relationships with pupils. Research has also shown improvement in children's classroom behaviours following the intervention. WOWW is usually delivered with a class teacher and their whole class. This study aims to find out how effective WOWW is when it is delivered with a class teacher and a small group of children.

Why has my child been selected?

Six children from your child's class have been invited to participate in the WOWW intervention. The selection was made by Mrs (headteacher) and Mrs (Year 1 teacher) as they thought that your child would benefit most from being part of this group.

Does my child have to take part?

No. Your child will only participate in the intervention if you want them to.

What will happen if I give permission for my child to take part?

If you choose for your child to participate in this research you will be asked to sign a consent form. Once you have given your consent (and the children and teacher have given theirs too), the research study will begin.

Your child's involvement will include:

Before the WOWW intervention

- 3 10-minute lesson observations of your child, completed by the researcher.
- 1 short questionnaire, completed by your child and explained by the researcher.

WOWW intervention

- 10 lesson observations over 10 weeks.
- The researcher will observe your child, their teacher and the five other children involved in the WOWW intervention 45 minutes once per week.
- After the 45-minute observation, the researcher will give a piece of specific, positive feedback to your child in front of your class.
- After the positive feedback, your child, their teacher, the researcher and the other five children will complete a 10-minute activity away from the rest of the class.
- The 10-minute activity will involve setting and rating positive classroom goals for the group of six children.

1-2 weeks after the WOWW intervention

- 3 further lesson observations of your child.
- 1 short questionnaire, completed by your child and explained by the researcher.
- 1 focus group where your child and two other children from the WOWW intervention will be asked questions by the researcher about their thoughts on being in the WOWW group. A teaching assistant will also be present during the focus group. An audio recording will be made of this discussion using a Dictaphone.
- You will be invited for a 30-minute interview with the researcher about your thoughts on your child being in the WOWW group. An audio recording will be made of this discussion using a Dictaphone.

6 weeks after the WOWW intervention

- 3 further lesson observations of your child.

Do I have to attend the interview if my child takes part?

No. You can choose for your child to take part and opt-out of the interview if you wish.

Will my child miss any lessons?

No. The researcher will observe your child in their normal lessons so there will be no disruption to them. They will take part in a 10-minute activity once per week for the WOWW intervention. Your child's teacher will also be part of the activity, the other children in the class will be working on a set teacher task, being supervised by a teaching assistant.

What are the possible benefits of taking part?

We hope that the sessions will be enjoyable for your child as they will be receiving positive praise about their behaviour in lesson. We also hope that there will be an increase in your child's on-task behaviour during lessons. The intervention will target specific positive behaviours such as 'sitting attentively during carpet time'. It is hoped that your child will improve on these specific behaviours too. Finally, we are hopeful that the WOWW intervention will have a positive impact on your child's teacher and the way they give feedback to your child. During the intervention, you will receive a handbook with more information about the WOWW approach and about using positive psychology at home.

What are the possible risks of taking part?

There are minimal risks to your child. The intervention only looks at your child's positive behaviours and disruptions to lessons are minimal. Your child may find it uncomfortable to receive positive praise in front of their class. If this is the case, the researcher will find other ways to praise your child e.g. 1:1 praise or a letter.

If I change my mind, can I withdraw my child from the study?

Yes. If at any point during the study you wish to withdraw your child, you can inform the researcher via email or through your child's class teacher and they would no longer be part of the WOWW group. The researcher will still be conducting observations and running the WOWW group, but your child would not be part of it and no further data would be collected about your child. Any data already collected would be destroyed. You do not have to give a reason for withdrawing your child. If, after the study, you want to withdraw your child's data, you have one month from the end of the study to inform the researcher of this via e-mail or via your child's class teacher.

Will my child's information be kept confidential in this study?

Yes. The researcher complies with the Data Protection Act (1998) in terms of handling, processing and destroying all participants' data. All data collected will be kept strictly confidential, with all data kept anonymously so that no participant can be personally identified. The data will be destroyed 10 years after the research is completed, having been stored securely over the interim.

Any paper copies of data (such as completed questionnaires) will be stored securely at XXXX Educational Psychology service. Any digital copies of data (such as audio recordings of interviews) will be stored securely on an encrypted memory stick.

What will happen with the results of the research study?

A summary of the key findings will be shared with you in an information sheet. This information will also be shared with the six children and their teacher.

In addition, the results of the study will be written up as part of the researcher's thesis for the Doctorate in Applied Educational and Child Psychology. The study may also be written as a journal article and submitted for publication to a relevant professional journal. The work may be presented at conferences. Your child's name (and the name of the school and all other research participants) will remain anonymous at all times. Some information about your child will be included: their age, their sex, their Special Educational Needs and whether they are entitled to Free School Meals or not.

Who is organising the research?

The research is organised by the University of Birmingham and XXXX Educational Psychology Service.

Who should I contact if there is a problem?

No risks should arise for your child as the teacher, of for any of the children as a result of participating in this research. However, if a problem were to arise, then the researcher, (Sophie Pitt) or the researcher supervisor (Anita Soni) can be contacted between 9-5pm Monday-Friday. Contact details are at the end of this information leaflet.

Who has reviewed the study?

This research project has been approved by the Humanities and Social Science Ethical Review Committee at the University of Birmingham.

What do I do next?

If you are willing for your child to participate in this study please complete the consent form.

Contact details for further information:

Sophie Pitt (Doctoral Researcher, University of Birmingham and Trainee Educational Psychologist, XXXX): SLP421@student.bham.ac.uk

Anita Soni (Research Supervisor, University of Birmingham): a.soni@bham.ac.uk

XXXX (Supervising Educational Psychologist, XXXX): XXXX

Thank you very much for taking the time to read this information leaflet and for considering your participation in the study.

Appendix 9.4 Consent Form for Child Participants

Hi (child's name),

I am going to read out some sentences to you. For each one, I am going to ask you if you understand the sentence and if you agree to it. If you agree to all the sentences, I want you to write your name at the bottom.

Statement	**Understand**	**Agree**
I am happy to be part of the special WOWW group with five other children in my class.		
I am happy for Sophie to come into school and watch me in my lessons.		
I am happy to answer some questions on paper.		
I am happy to answer some questions in a small group.		
I am happy for Sophie to record what I am saying so she can listen to it later.		
I don't have to help Sophie with her project, I can stop at any time and I won't get in trouble.		
If I say or write something that Sophie is worried about, she would need to ask for help.		

I understand everything Sophie said and I agree to it.

Name: ……

Date: ……

Appendix 9.5 Consent Form for Parents

Dear Parent/Guardian,

Please find the consent form for your child's participation in the 'Working on What Works' (WOWW) study. I would be grateful if you could complete it and return it to your child's teacher.

Consent Form

Parent(s) Name: _____

Child's Name: _____

I have read and understood the project information sheet.

YES / NO

I have been given the opportunity to ask questions about the project.

YES / NO

I agree for my child to take part in the project. This includes my child:

- Being part of the 'Working on What Works' (WOWW) intervention with five other children from their class.
- Being observed in lessons by Sophie Pitt, Trainee Educational Psychologist.
- Taking part in a focus group with two other children from the WOWW group, Sophie Pitt and a Teaching Assistant.
- Completing a short questionnaire before and after the WOWW intervention, which will be explained to them by Sophie Pitt.
- Receiving positive feedback on their behaviour in front of the class, once a week for 10 weeks, by Sophie Pitt.
- Taking part in a 10-minute activity once a week for 10 weeks with Sophie Pitt, five other children from their class and their class teacher. The activity will involve setting and rating positive behaviour goals.

YES / NO

I agree that my child's voice will be recorded throughout the focus group interview.

YES / NO

I am interested in taking part in an interview with Sophie Pitt about my child after the WOWW intervention and would like more information. If I choose to take part in the interview, I understand that my voice will be recorded during the interview.

YES / NO

I understand that my child's participation is voluntary. I understand that I can withdraw my child from the study at any time. If, after the study, I want to withdraw my child's data, I have one month to inform the researcher. I know that I do not have to give any reasons for withdrawing data.

YES / NO

I agree that the results of the study will be written in a report for the researcher's university thesis and may later be published in an academic journal. I understand that my child's name or the name of their school or teachers will not be included in these reports. I understand that basic details about my child will be included: their sex, their age, any Special Educational Needs and whether they are entitled to Free School Meals.

YES / NO

I agree for the data I provide to be stored securely by the researcher for ten years.

YES / NO

Parent's signature _____

Date _____

Researcher's signature _____

Date _____

Thank you for taking the time to complete the consent form. Please get in touch with me if you have any questions or queries.

Yours Sincerely,

Sophie Pitt.

SLP421@student.bham.ac.uk

XXXX

Appendix 9.6 Consent Form for Teacher

Dear (teacher),

Please find the consent form for your participation in the 'Working on What Works' (WOWW) study. I would be grateful if you could complete it and return it to me at your earliest convenience.

Consent Form

I have read and understood the project information sheet.

YES / NO

I have been given the opportunity to ask questions about the project.

YES / NO

I agree to take part in the project. This includes me:

- Being part of the 'Working on What Works' (WOWW) intervention.
- Having a 30-minute introduction to the WOWW approach with Sophie Pitt
- Being observed in lessons by Sophie Pitt, Trainee Educational Psychologist.
- Taking part in three semi-structured interviews with Sophie Pitt.
- Answering a short questionnaire about each of the six children at three different points in time.
- Receiving positive feedback on your teaching practice in front of your class, once a week for 10 weeks, by Sophie Pitt.
- Taking part in a 10-minute activity once a week for 10 weeks with Sophie Pitt, and the six children in the WOWW group. The activity will involve setting and rating positive behaviour goals for the children.

YES / NO

I agree that my voice will be recorded throughout the interviews.

YES / NO

I understand that my participation is voluntary. I understand that I can withdraw from the study at any time. If, after the study, I want to withdraw my data, I have one month to inform the researcher. I know that I do not have to give any reasons for withdrawing data.

YES / NO

I agree that the results of the study will be written in a report for the researcher's university thesis and may later be published in an academic journal. I understand that my name or the name of their school will not be included in these reports. I understand that basic details about me will be included, i.e. sex and position in the school.

YES / NO

I agree for the data I provide to be stored securely by the researcher for ten years.

YES / NO

Teacher's name _____

Teacher's signature _____

Date _____

Researcher's signature _____

Date _____

Appendix 9.7 Information Sheet for Parents of Non-Participating Children in the Class

Dear Parent/Guardian,

My name is Sophie Pitt and I am a Trainee Educational Psychologist. For my doctoral research project, I am working with your child's class teacher and six children from your child's class. Your child will not be directly involved in my research. However, your child will be aware of the research study and I wanted to give you some information about the project.

I am evaluating the impact of a classroom behaviour management intervention called 'Working on What Works' (WOWW). I will be coming into your child's classroom once a week for 10 weeks in the Autumn term. I will be completing an observation each week of the six children in the WOWW group and the class teacher. After each observation I will be giving positive feedback to the WOWW group and the class teacher. I will then complete a 10-minute activity with the WOWW group and the class teacher.

How will this affect my child?

- There will be no changes to your child's lessons.
- I will not be directly observing your child.
- Your child may be aware of me in the classroom.
- Your child may feel a little sad that I am not giving them positive feedback. To help with this, your child's class teacher will be giving positive, specific praise to your child in front of the class at some point during the days when I have been in school.
- When the WOWW group are completing a 10-minute activity once a week for 10 weeks, your child will be in their classroom completing a typical task and will be supervised by the teaching assistant while the class teacher is with the WOWW group. This will not feel unusual to your child who will regularly have short periods without their class teacher e.g. phonics groups.

Thank you for taking the time to read this letter. If you have any questions at all, please do not hesitate to contact me.

Yours Sincerely,

Sophie Pitt.

XXXX

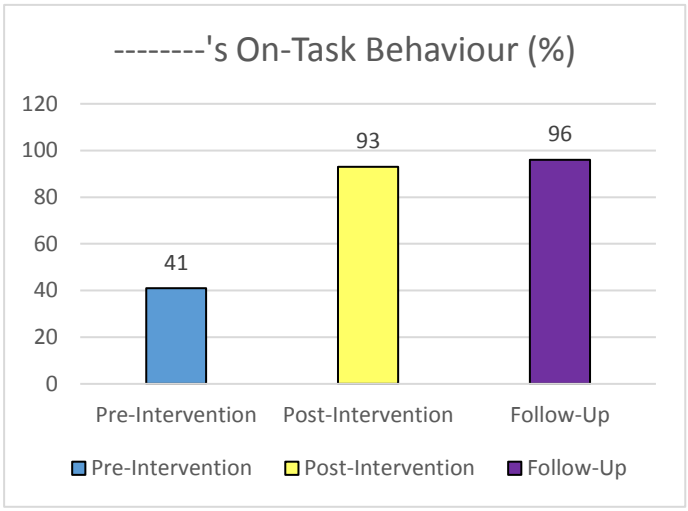
Appendix 10: Feedback to Participants

Appendix 10.1: Example of Feedback Letter to Parents

Dear parent(s) of ----------,

Thank you again for allowing -------- to participate in the WOWW intervention, I loved working with her and it has really helped me with my university work. Thank you also for taking part in the interview, it was really helpful to get your thoughts. I thought it would be nice to share some of the results of my research, as they show how much ----- has improved in Year 2.

Before the intervention, in November of Year 2, ----- was on-task (listening, looking at the teacher, completing work etc.) for 41% of the time in lessons. By April, after being part of the WOWW group, this increased to ----- being on-task for 96% of the time in lessons. This is shown in the graph:



When I asked Mrs (*teacher)* how -------- was in school after the intervention, she has lots of positive things to say, for example:

> *"she is very good now at ignoring distractions and making sure that she's on-task"*
>
> *"recently she's very happy she comes in happy she's focussed she does her work if she doesn't know what she's doing she'll put her hand up now or she'll ask somebody."*

--------- has made fantastic progress and was a delightful child to work with. Thank you again!

Yours Sincerely,

Sophie Pitt.

Educational Psychologist in Training

Appendix 10.2 Feedback to Class Teacher and Headteacher

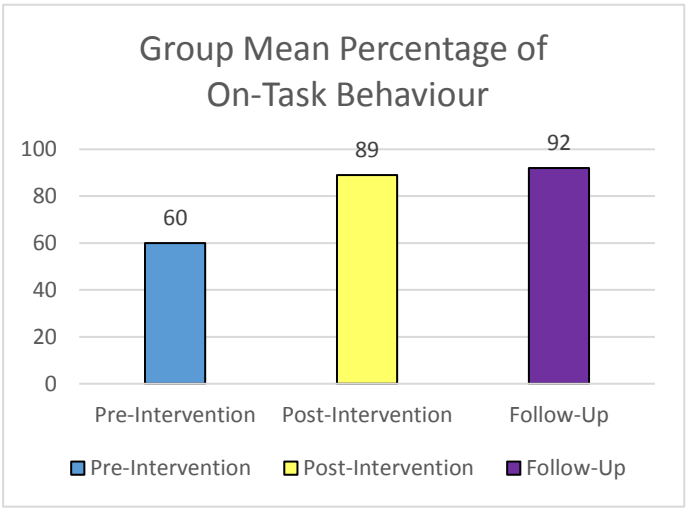
Feedback from the WOWW Intervention

Dear ----- and ------,

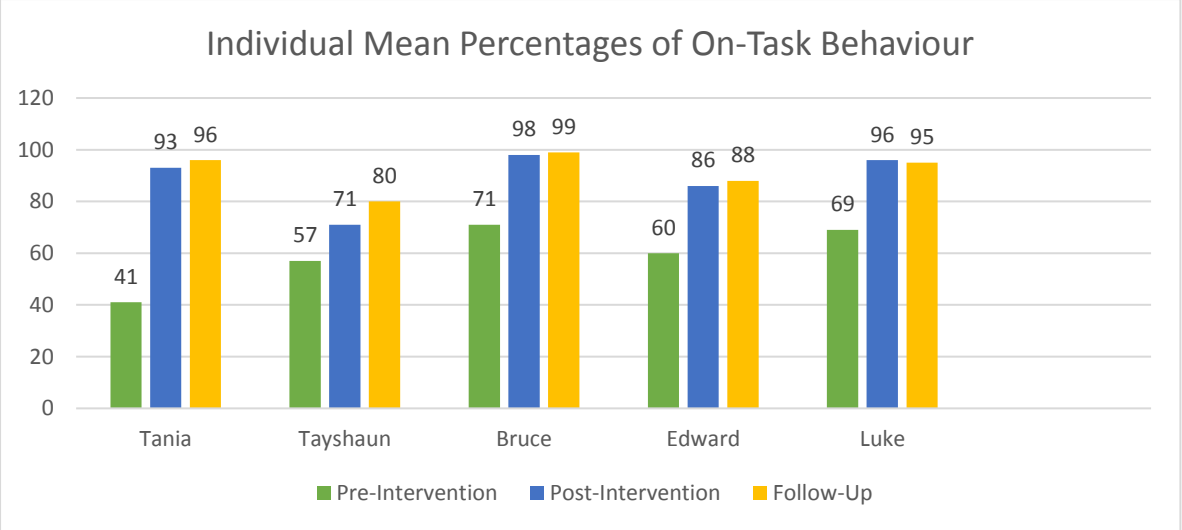
I wanted to express my sincere thanks to you both for allowing me to conduct my doctoral research in your school. Without your support, I would not have been able to complete the qualification which enables me to become an educational psychologist; I will be eternally grateful to you both. I met with ----- at the end of the WOWW intervention to share the results of the study, but I wanted to formally share them here.

Group Data from the WOWW intervention

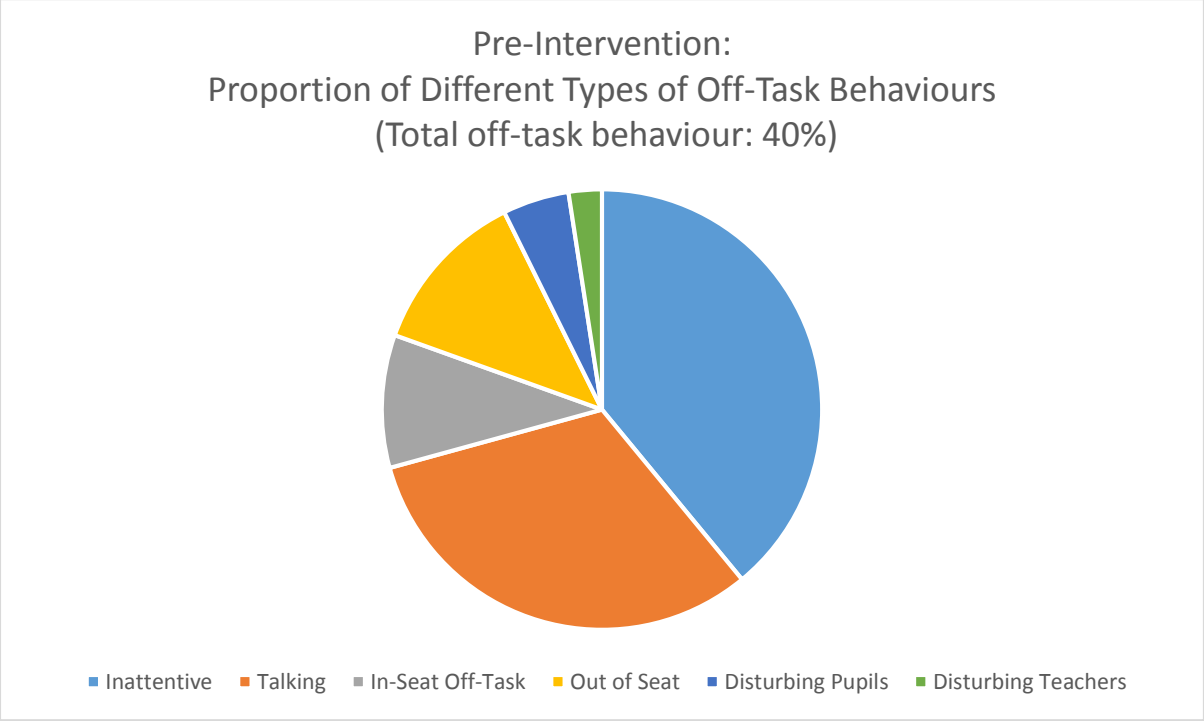
I completed 3 hours of classroom observations before the intervention started and the children were on-task for 60% of the lessons I observed. After the intervention, I observed the group for another three hours, and the rate of on-task behaviour increased to 89%. It then increased again in the 3 hours of observations 6 weeks later, to 92% on-task. This is shown in the graph below:



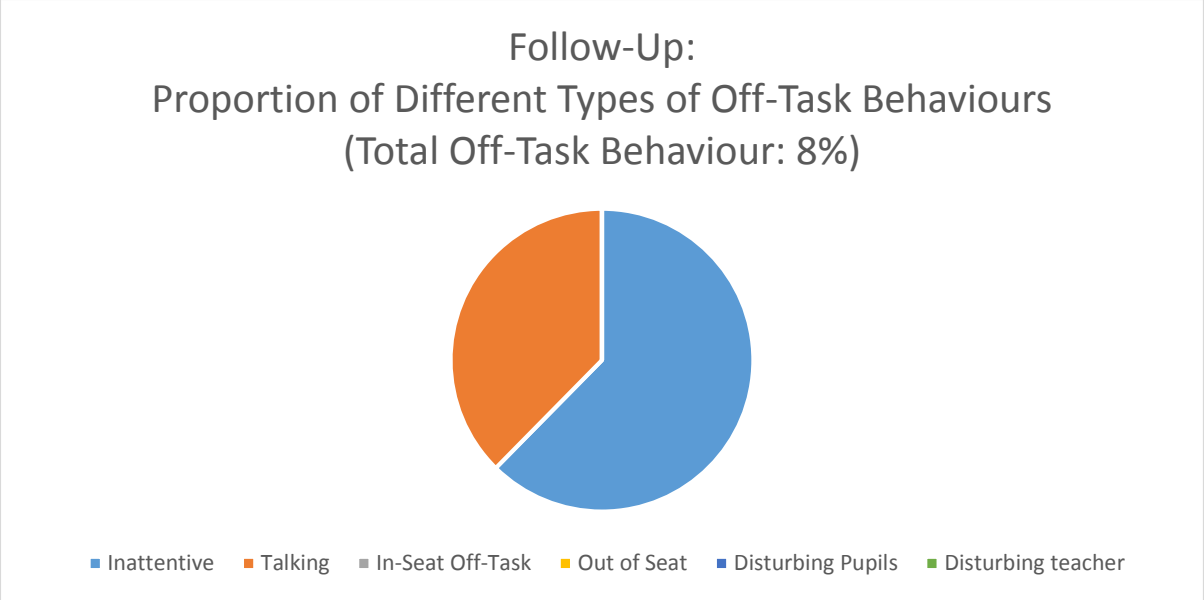
All children improved in their on-task behaviour. ------ improved the most as her on-task behaviour rate increased by 55%. --------'s increase was the smallest, at 23%. The graph overleaf shows how each child improved:



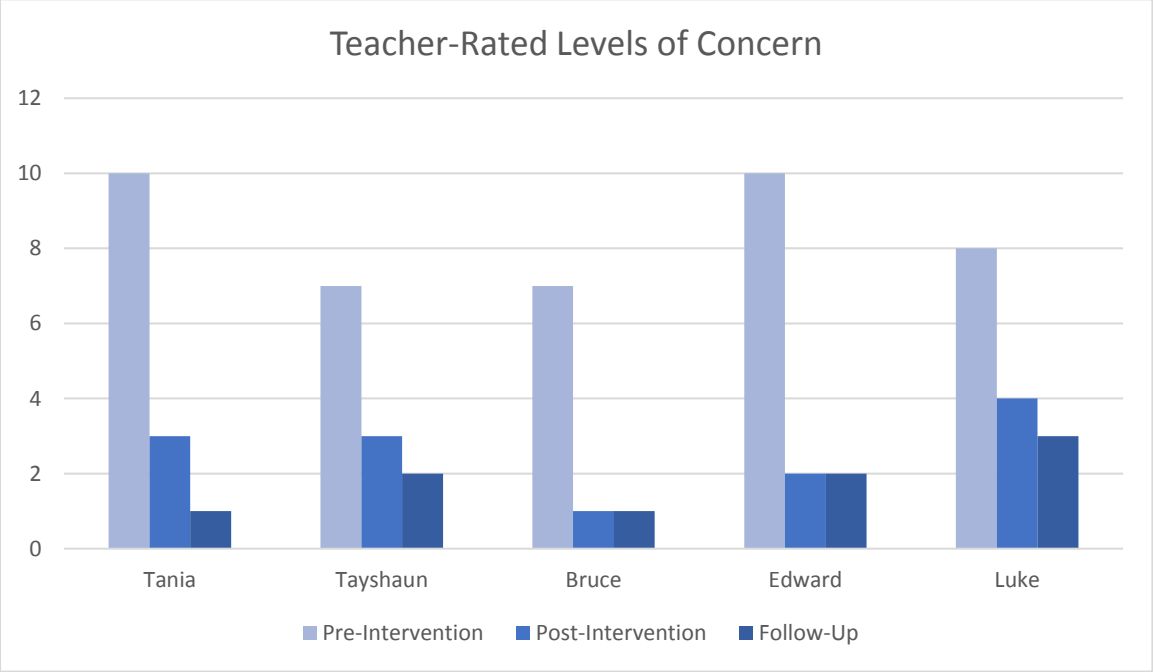
Before the intervention started, the group of children were displaying lots of different types of off-task behaviours, this is depicted in the pie chart below:



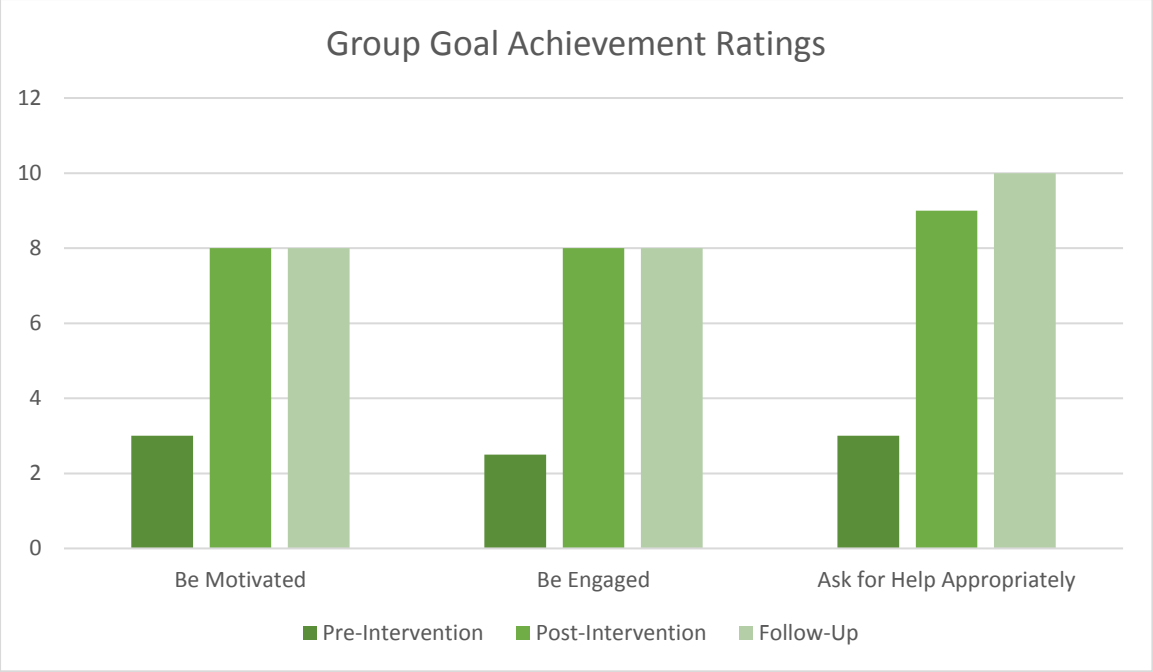
After the intervention, off-task behaviour reduced overall and, interestingly, the number of different types of off-task behaviours also reduced. For example, by the follow-up observations (6 weeks after the WOWW intervention had ended), the only off-task behaviours displayed by the group were talking and being inattentive. This is shown in the pie chart overleaf:



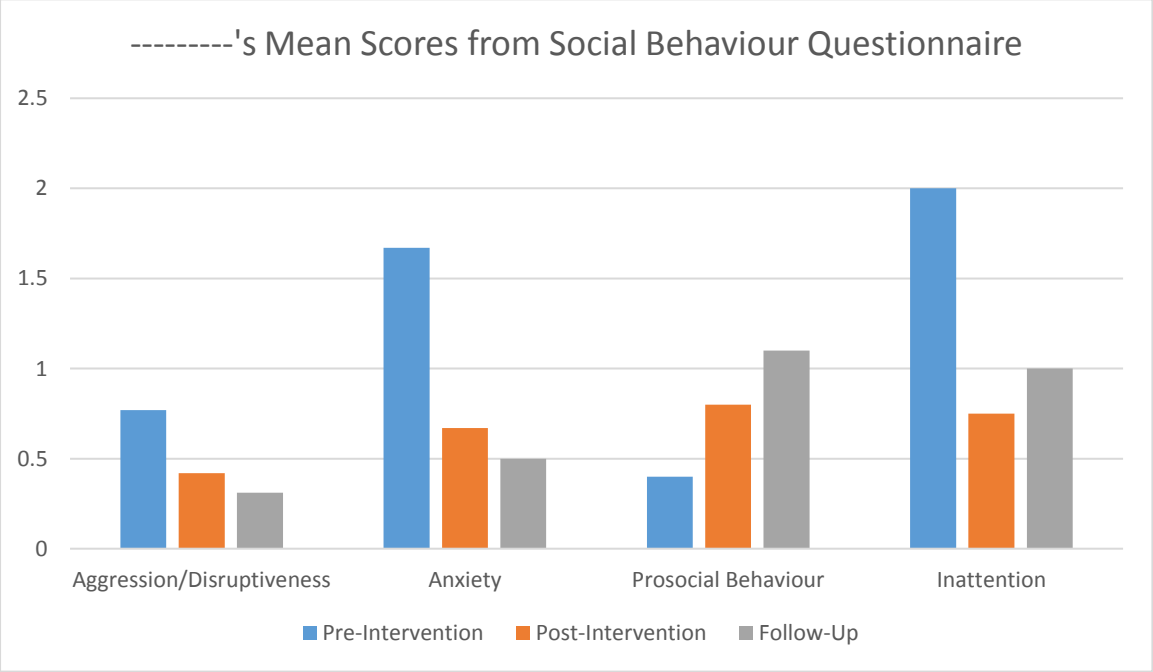
These results were consistent with Mrs -----'s perceptions of the children's behaviours. Initially, she was very concerned about the group and rated her concern as 7-10 out of 10 for each child (10 being most concerned). This lessened after the intervention, as shown in the graph below:



Before the intervention, Mrs ----- set three goals for the group of children. She rated these goals on a scale of 1-10, based on how much she thought the group were currently achieving the goal (1 being minimum achievement, 10 being maximum achievement). After the intervention, Mrs ------ felt that they were achieving their goals at a much higher level than before the intervention, as shown in the graph overleaf:



Mrs ------ completed a questionnaire about each child before the WOWW intervention and at post-intervention and follow-up stages. Mostly, each of the children's aggression/disruption, anxiety and inattention levels decreased after the intervention, and pro-social behaviours increased. --------'s questionnaire data is included here as an example:



The parents of the five children were asked for their views on the intervention/changes in their child's behaviour. Some of their comments are included here:

> *"…she's a lot happier to go to school , like before she would kick off in the morning wouldn't want to get dressed…but she's a lot better now"*

"…he's a lot more confident than he was… people are commenting on it he just seems so much better at the minute…he never worries about school anymore whereas before he would literally lose sleep about coming to school because sometimes he does have problems in the playground…he's just a lot happier now"

The children were also interviewed and all reported to love taking part in the WOWW intervention and described it as *"fun"* and *"awesome"*. Some of their comments about their behaviour change were:

"all of them things you've done have helped me to ignore distractions".

"I got an award yesterday for concentrating as best as I could".

"I think she (Mrs -----) *would say I always listen to the teacher now".*

"I used to talk and now I don't"

The results of the WOWW intervention suggest that it has had a positive impact on the group of children, and this is supported by Mrs Gill's perceptions. For example, she noted:

"I think it's had a huge impact on those children , I mean if you just look at their books , the amount of work that they are producing compared to before , not even producing but completing is amazing"

"I think we chose the right children and it has made a difference in the whole class as well…it's just made it feel a bit more like a class whereas before some children were really loud, some children were not focussed whereas I feel like they're all kind of getting together and doing the same thing they're all focussed…they're all working together for the same kind of goals"

-Thank you so much, -------, for welcoming me into your classroom for 6 months-

Yours Sincerely,

Sophie Pitt

Educational Psychologist in Training

Appendix 11: Observation Data from the Pupil Behaviour Schedule

Appendix 11.1 Individual On-Task and Off-Task Data

1. Tania

Intervention phase	1st observation On-task/off-task (% on-task)	2nd observation On-task/off-task (% on-task)	3rd observation On-task/off-task (% on-task)	Mean Average
Pre	23/53 (43%)	14/34 (41%)	19/49 (39%)	41% on-task 59% off-task
Post	35/38 (92%)	40/45 (89%)	30/31 (97%)	93% on-task 7% off-task
Follow-up	46/47 (98%)	39/42 (93%)	51/53 (96%)	96% on-task 4% off-task

2. Tayshaun

Intervention phase	1st observation On-task/off-task (% on-task)	2nd observation On-task/off-task (% on-task)	3rd observation On-task/off-task (% on-task)	Mean Average
Pre	28/53 (53%)	19/34 (56%)	31/49 (63%)	57% on-task 43% off-task
Post	22/38 (58%)	31/45 (69%)	27/31 (87%)	71% on-task 29% off-task
Follow-up	38/47 (81%)	35/42 (83%)	41/53 (77%)	80% on-task 20% off-task

3. Bruce

Intervention phase	1st observation On-task/off-task (% on-task)	2nd observation On-task/off-task (% on-task)	3rd observation On-task/off-task (% on-task)	Mean Average
Pre	43/53 (81%)	21/34 (62%)	34/49 (69%)	71% on-task 29% off-task
Post	37/38 (97%)	40/45 (100%)	30/31 (97%)	98% on-task 2% off-task
Follow-up	47/47 (100%)	42/42 (100%)	52/53 (98%)	99% on-task 1% off-task

4. Edward

Intervention phase	1st observation On-task/off-task (% on-task)	2nd observation On-task/off-task (% on-task)	3rd observation On-task/off-task (% on-task)	Mean Average
Pre	37/53 (70%)	17/34 (50%)	30/49 (61%)	60% on-task 40% off-task
Post	30/38 (79%)	38/45 (84%)	30/31 (97%)	87% on-task 14% off-task
Follow-up	42/47 (89%)	35/42 (83%)	48/53 (91%)	88% on-task 12% off-task

5. Luke

Intervention phase	1st observation On-task/off-task (% on-task)	2nd observation On-task/off-task (% on-task)	3rd observation On-task/off-task (% on-task)	Mean Average
Pre	44/53 (83%)	16/34 (47%)	38/49 (78%)	69% on-task 31% off-task
Post	35/38 (92%)	Absent	31/31 (100%)	96% on-task 4% off-task
Follow-up	43/47 (91%)	40/42 (95%)	52/53 (98%)	95% on-task 5% off-task

Appendix 11.2: Group On-Task and Off-Task Behaviour

Intervention phase	Group Mean
Pre	60% on-task 40% off-task
Post	89% on-task 11% off-task
Follow-up	92% on-task 8% off-task

Appendix 11.3 Off-Task Behaviour Type (Individual)

1. Tania

Off-task behaviour type	Pre-intervention				Post-intervention				Follow-up			
	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**
Inattentive	11/53 (21%)	8/34 (24%)	11/49 (22%)	**22%**	1/38 (3%)	1/45 (2%)	1/31 (3%)	**3%**	0/47 (0%)	1/42 (2%)	1/53 (2%)	**1%**
Talking	7/53 (13%)	7/34 (21%)	12/49 (24%)	**19%**	2/38 (5%)	1/45 (2%)	0/31 (0%)	**2%**	1/47 (2%)	1/42 (2%)	0/53 (0%)	**1%**
In-seat off-task	6/53 (11%)	0/34 (0%)	7/49 (14%)	**8%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Out of seat	6/53 (11%)	2/34 (6%)	0/49 (0%)	**6%**	0/38 (0%)	3/45 (7%)	0/31 (0%)	**2%**	0/47 (0%)	1/42 (2%)	0/53 (0%)	**1%**
Disturbing pupils	0/53 (0%)	2/34 (6%)	0/49 (0%)	**2%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Disturbing teacher	0/53 (0%)	1/34 (3%)	0/49 (0%)	**1%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	1/53 (2%)	**1%**

2. Tayshaun

Off-task behaviour type	Pre-intervention				Post-intervention				Follow-up			
	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**
Inattentive	15/53 (28%)	4/34 (12%)	8/49 (16%)	**19%**	5/38 (13%)	10/45 (22%)	3/31 (10%)	**15%**	6/47 (13%)	6/42 (14%)	6/53 (11%)	**13%**
Talking	3/53 (6%)	7/34 (21%)	6/49 (12%)	**13%**	1/38 (3%)	3/45 (7%)	1/31 (3%)	**4%**	2/47 (4%)	1/42 (2%)	2/53 (4%)	**3%**
In-seat off-task	5/53 (9%)	0/34 (0%)	4/49 (8%)	**6%**	2/38 (5%)	0/45 (0%)	0/31 (0%)	**2%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Out of seat	0/53 (0%)	2/34 (6%)	0/49 (0%)	**2%**	6/38 (16%)	0/45 (0%)	0/31 (0%)	**5%**	0/47 (0%)	0/42 (0%)	2/53 (4%)	**1%**
Disturbing pupils	1/53 (2%)	1/34 (3%)	0/49 (0%)	**2%**	0/38 (0%)	1/45 (2%)	0/31 (0%)	**1%**	1/47 (2%)	0/42 (0%)	1/53 (2%)	**1%**
Disturbing teacher	1/53 (2%)	1/34 (3%)	0/49 (0%)	**2%**	2/38 (5%)	0/45 (0%)	0/31 (0%)	**2%**	0/47 (0%)	0/42 (0%)	1/53 (2%)	**1%**

3. Bruce

Off-task behaviour type	Pre-intervention				Post-intervention				Follow-up			
	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**
Inattentive	7/53 (13%)	5/34 (15%)	1/49 (2%)	**10%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	1/53 (2%)	**1%**
Talking	2/53 (4%)	6/34 (18%)	2/49 (4%)	**9%**	1/38 (3%)	0/45 (0%)	1/31 (3%)	**2%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
In-seat off-task	1/53 (2%)	0/34 (0%)	2/49 (4%)	**2%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Out of seat	0/53 (0%)	1/34 (3%)	10/49 (20%)	**8%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Disturbing pupils	0/53 (0%)	1/34 (3%)	0/49 (0%)	**1%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Disturbing teacher	0/53 (0%)	0/34 (0%)	0/49 (0%)	**0%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**

4. Edward

Off-task behaviour type	Pre-intervention				Post-intervention				Follow-up			
	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**
Inattentive	8/53 (15%)	7/34 (21%)	7/49 (14%)	**17%**	6/38 (16%)	2/45 (4%)	1/31 (3%)	**8%**	5/47 (11%)	6/42 (14%)	5/53 (9%)	**11%**
Talking	6/53 (11%)	5/34 (15%)	3/49 (6%)	**11%**	2/38 (5%)	5/45 (11%)	0/31 (0%)	**5%**	0/47 (0%)	1/42 (2%)	0/53 (0%)	**1%**
In-seat off-task	0/53 (0%)	0/34 (0%)	5/49 (10%)	**3%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Out of seat	1/53 (2%)	2/34 (6%)	4/49 (8%)	**5%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Disturbing pupils	1/53 (2%)	2/34 (6%)	0/49 (0%)	**3%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Disturbing teacher	0/53 (0%)	1/34 (3%)	0/49 (0%)	**1%**	0/38 (0%)	0/45 (0%)	0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**

5. Luke

Off-task behaviour type	Pre-intervention				Post-intervention				Follow-up			
	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**	Obs 1	Obs 2	Obs 3	**Mean %**
Inattentive	6/53 (11%)	4/34 (12%)	7/49 (14%)	**12%**	1/38 (3%)	Absent	0/31 (0%)	**2%**	0/47 (0%)	0/42 (0%)	1/53 (2%)	**1%**
Talking	0/53 (0%)	10/34 (29%)	3/49 (6%)	**12%**	0/38 (0%)		0/31 (0%)	**0%**	4/47 (9%)	2/42 (5%)	0/53 (0%)	**5%**
In-seat off-task	2/53 (4%)	0/34 (0%)	0/49 (0%)	**1%**	0/38 (0%)		0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Out of seat	1/53 (2%)	3/34 (9%)	1/49 (2%)	**4%**	1/38 (3%)		0/31 (0%)	**2%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Disturbing pupils	0/53 (0%)	1/34 (3%)	0/49 (0%)	**1%**	1/38 (3%)		0/31 (0%)	**2%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**
Disturbing teacher	0/53 (0%)	0/34 (0%)	0/49 (0%)	**0%**	0/38 (0%)		0/31 (0%)	**0%**	0/47 (0%)	0/42 (0%)	0/53 (0%)	**0%**

Appendix 11.4 Off-Task Behaviour Type (Group)

Off-task behaviour type	Pre-intervention		Post-intervention		Follow-up	
	Group Mean: % of observation	Group Mean: % of off-task behaviour	Group Mean: % of observation	Group Mean: % of off-task behaviour	Group Mean: % of observation	Group Mean: % of off-task behaviour
Inattentive	16%	16/40 (40%)	6%	6/11 (55%)	5%	5/8 (63%)
Talking	13%	13/40 (33%)	3%	3/11 (27%)	3%	3/8 (38%)
In-seat off-task	4%	4/40 (10%)	0%	0/11 (0%)	0%	0/8 (0%)
Out of seat	5%	5/40 (8%)	2%	2/11 (18%)	0%	0/8 (0%)
Disturbing pupils	2%	2/40 (5%)	1%	1/11 (9%)	0%	0/8 (0%)
Disturbing teacher	1%	1/40 (3%)	0%	0/11 (0%)	0%	0/8 (0%)

Appendix 12: Social Behaviour Questionnaire Raw Data

1. Tania

	Pre			Post			Follow-up		
	Raw	Sig	Mean	Raw	Sig	Mean	Raw	Sig	Mean
Aggression/Disruptiveness	6	Y	0.46	4	Y	0.31	0	N	0.00
Anxiety	7	Y	1.17	3	Y	0.50	1	N	0.17
Prosocial	13	Y	1.3	10	Y	1.00	17	Y	1.7
Inattention	6	Y	1.5	3	Y	0.75	0	N	0.00

2. Tayshaun

	Pre			Post			Follow-up		
	Raw	Sig	Mean	Raw	Sig	Mean	Raw	Sig	Mean
Aggression/Disruptiveness	10	Y	0.77	6	Y	0.42	4	N	0.31
Anxiety	10	Y	1.67	4	Y	0.67	3	Y	0.5
Prosocial	4	N	0.40	8	N	0.80	11	Y	1.1
Inattention	8	Y	2.00	3	Y	0.75	4	Y	1.0

3. Bruce

	Pre			Post			Follow-up		
	Raw	Sig	Mean	Raw	Sig	Mean	Raw	Sig	Mean
Aggression/Disruptiveness	0	N	0.00	0	N	0.00	0	N	0.00
Anxiety	8	Y	1.33	3	Y	0.50	3	Y	0.50
Prosocial	3	N	0.30	5	N	0.50	8	N	0.80
Inattention	0	N	0.00	1	N	0.25	0	N	0.00

4. Edward

	Pre			Post			Follow-up		
	Raw	Sig	Mean	Raw	Sig	Mean	Raw	Sig	Mean
Aggression/Disruptiveness	4	N	0.31	0	N	0.00	3	N	0.23
Anxiety	5	Y	0.83	2	N	0.33	3	Y	0.50
Prosocial	12	Y	1.20	11	Y	1.10	15	Y	1.50
Inattention	7	Y	1.75	2	N	0.50	2	N	0.50

5. Luke

	Pre			Post			Follow-up		
	Raw	Sig	Mean	Raw	Sig	Mean	Raw	Sig	Mean
Aggression/Disruptiveness	14	Y	1.08	11	Y	0.85	9	Y	0.69
Anxiety	2	N	0.33	0	N	0.00	0	N	0.00
Prosocial	4	N	0.40	3	N	0.30	2	N	0.20
Inattention	1	N	0.25	1	N	0.25	2	N	0.50

Group

	Pre	Post	Follow-up
	Mean	Mean	Mean
Aggression/Disruptiveness	0.524	0.316	0.246
Anxiety	1.066	0.4	0.334
Prosocial	0.72	0.74	1.06
Inattention	1.1	0.5	0.4

Appendix 13: Coded Interview Transcript Example

POST-INTERVENTION TEACHER INTERVIEW:

Section Three: Perspectives of the WOWW intervention

Transcribed Data	Final Theme	Final Sub-theme
SOPHIE: Okay and the last part of the interview is about your feelings about the WOWW intervention. So the first question is what impact, if it's had any, do you think it's had on you as a teacher?		
TEACHER: I think it's made me think about my positive praise and how I'm delivering it and how I'm getting the children to see that positive praise and making them feel special and important and happy about themselves and making them feeling that they're part of a class and we're not always targeting them and sometimes it is just me moving them with maybe a partner who is a better partner for them so that that partner is able to help them make the right choices because if for example I put them with someone who maybe will make them talk or make them do the wrong thing (maybe they were talking about Eastenders last night or something) (laughs) but actually if I put them with someone who will allow them to make progress then it's made me think about their partners as well.	Positive Feedback Class Climate	Integration of WOWW group
SOPHIE: So we've touched on this in the first part of the interview but overall what impact do you think this intervention has had on that group of children?		
TECAHER: I think it's had a huge impact on those children, I mean if you just look at their books – the amount of work that they are producing compared to before, not even producing but completing is amazing. And that is helpful for me because it's giving me the evidence in their books so that if somebody comes I can show. For example we were talking about one child before – because I had no evidence in their book because for some reason that child was very negative,	Impact on Children	Academic Work

very low in self-esteem so he would just sit there in a literacy lesson but now he completes his work so I've got evidence to say "well he can do this and he can do this" whereas before I wasn't really able to say because I was like "well I don't know if he can do it I don't know I'm not sure" but because that behaviour has subsided and he feels more happy and more positive he's completing more which is giving me more evidence to show what he can do and the progress he can make. SOPHIE: And where to move them on. Okay super and just thinking about your own personal opinions on it, what did you like about the WOWW intervention? TEACHER: I liked the fact that you targeted the different children and how at the end of the lesson you always used to give the feedback verbally in front of the whole class and whenever you used to say that you could just see the smiles on their faces and even when you used to give it to me I used to have a smile on my face and it's so small but it also made me realise that actually just somebody giving you positive praise makes you feel so much happier and you get like a warm feeling inside. You could see from the faces of those children that they really enjoyed getting that positive feedback and then it made them think about how they can get it that little bit more and then when they were getting it more they were like "actually this is quite nice" about someone being positive. SOPHIE: Like a positive cycle almost? TEACHER: Yeah definitely. SOPHIE: Okay super and what do you think could have been better or different about the intervention? TEACHER: Erm I think it's worked quite well so I wouldn't really say anything different. I mean working in schools it's hard to with timing and things so you've done really well and it would be easy to say – like we tried to do it every Monday but it was so hard.	Positive Feedback Feasibility of WOWW	

SOPHIE: It was quite nice seeing them in lots of different lessons and them sort of knowing I can appear at any time. TEACHER: (laughs) Yeah not knowing it's just Monday morning, but I think it's worked really well there's nothing I would change. SOPHIE: Okay super and we've touched on this as well but the WOWW intervention is normally delivered with the whole class, how effective did you feel it was with a group instead of the whole class. TEACHER: I think it was just as effective because even though you were only there looking at those children , the whole class kind of got the benefits of it because the other children knew what you were looking for so I think they were also trying to do those behaviours and show those behaviours and when I was doing it I was talking to all of them and when I was doing my positive praise I wasn't just focusing on the five children I was focusing on everybody so I would make sure it wasn't just those children so I think it still has an impact on the rest of the class definitely. SOPHIE: And considering the pupil's SEN, lower attainment etc. do you think there was any barriers to the intervention? TEACHER: No I don't think so. SOPHIE: Okay and within the group do you think there has been any children that it has had more or less impact with? TEACHER: Yeah, I feel like they've all improved so much but I feel like a few of them have improved immensely like Bruce has just come out of his shell so much, Edward has made tons of progress I mean I don't even mention his name anymore because he is always on task, he's always doing the right thing and Tania as well she's just so different like before she'd be like "I need to go to the toilet" "I need to do this I need to do	Feasibility of WOWW Class Climate Impact on Children	Whole-Class Benefits Differential Impact

this" anything to distract her from her learning, talk to somebody behind her but now she's always so focused. I'd say the only two are Luke but I think that's himself and Tayshaun but with Tayshaun there's that learning side rather than the behaviour side which he might find a little bit difficult. SOPHIE: Is there anything you think you can carry on in your teaching practice or anything you can take from it once the intervention fully finishes? TEACHER: Yeah definitely I think for me the positive praise and making sure that I'm always giving praise and maybe even your small targets and maybe having a class target and making sure we all work on that target. That was quite nice because they knew what their target was so they always used to think about it, it was always in the back of their head when they were doing learning like "I need to tune out distractions" so they would be thinking about that. SOPHIE: Yeah so like bringing it to their minds? TEACHER: Yeah so maybe like having a whole class target and working on that as a class. SOPHIE: And what would you say to another teacher that was thinking about participating in a WOWW intervention, would you have any advice? TEACHER: I would say definitely go for it. I mean there's nothing – I wouldn't say that there is anything negative that's come from the WOWW intervention everything has been so positive and it's made such a huge impact on those children that I wouldn't see why anybody would not want the WOWW research to be done.	Feasibility of WOWW Feasibility of WOWW Feasibility of WOWW	

Appendix 14: Cards for Children's Ranking of Intervention Components

Sophie coming into my lessons and watching the good things I do.

Sophie saying nice things about me in front of everyone in my class.

Taking part in the WOWW group activities outside of the classroom.

Setting our goals for the week and rating them out of 10.

Our Goals:

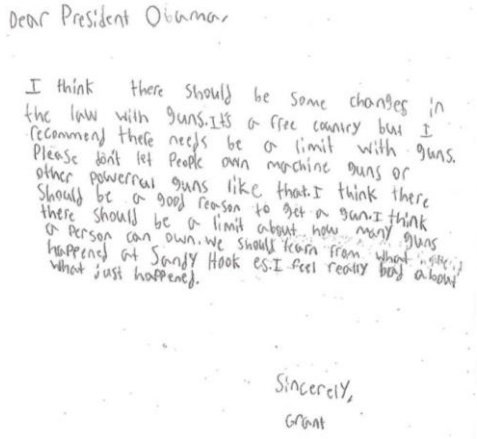
1. _____

2. _____

3. _____

	1	2	3	4	5	6	7	8	9	10
Goal 1										
Goal 2										
Goal 3										

Getting handwritten letters from Sophie.



Dear President Obama,

I think there should be some changes in the law with guns. It's a free country but I recommend there needs be a limit with guns. Please don't let People own machine guns or other powerful guns like that. I think there should be a good reason to get a gun. I think there should be a limit about how many guns a person can own. We should learn from what happened at Sandy Hook es. I feel really bad about what just happened.

Sincerely,
Grant

(One card was left intentionally blank for children's own ideas)

Appendix 15: Raw Data from Children's Ranking of Intervention Components

	Tania		Tayshaun		Bruce		Edward		Luke		**Enjoyment**		**Helpfulness**	
	E	H	E	H	E	H	E	H	E	H	**Total**	**%**	**Total**	**%**
Observations	2	2	1	4	2	3	1	2	2	3	**8**	**32**	**14**	**56**
Positive comments in front of the class	1	3	2	3	1	5	4	1	1	2	**9**	**36**	**14**	**56**
Group activities outside of the classroom	5	4	4	5	5	1	5	3	5	5	**24**	**96**	**18**	**72**
Goal setting and scaling	4	1	3	2	3	2	2	4	4	4	**16**	**64**	**13**	**52**
Handwritten letters	3	5	5	1	4	4	3	5	3	1	**18**	**72**	**16**	**64**

*E= Ejoyment, H = Helpfulness

**1 – least enjoyable/helpful, 5 – most enjoyable/helpful

Appendix 16: List of Initial Codes Generated in Thematic Analysis of Parent and Teacher Interviews

The table below details the codes that were generated in the initial phases of the thematic analysis and the number of times they occurred in the teacher and parent interview transcripts:

Code	Frequency	
	Teacher interviews	Parents' interviews
Impact on teacher feedback	2	
Children's feelings of happiness	4	6
Integration of WOWW group into class	4	
Adjustments made for children in WOWW group in the classroom	1	
Significant positive impact of WOWW/significant changes in children	3	1
WOWW's impact on children's school work	4	
Reduction in challenging behaviours	2	
WOWW with a small-group	2	
Positive responses/impact to praise (child)	2	1
Positive responses/impact to praise (teacher)	1	
Small steps	1	
Enlightenment/changes in teacher's thinking/reflection	3	
Logistical difficulties of weekly sessions	1	
Satisfaction/Acceptability with WOWW	3	1
Whole-class impact	2	
Variance of impact on children within WOWW group	2	
Impact on internalising behaviours	1	1
Increased pro-social behaviours	1	
Utility of small targets/goals	2	
Children's improved attitude towards school		3
Children's discussions with parents about WOWW		3
Fondness of letters		4
Letters as school-home communication		4
Improved school-related work at home		2
Parents unsure of WOWWs impact		3
Parents' limited knowledge/understanding of WOWW		3
Others noticing changes in children's behaviours		2